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ABSTRACT

The document discusses the highly developed, diversified, and decentralized system of education in Switzerland. Because of the political, geographic, and linguistic diversity of education in Switzerland, this brief report is limited to major characteristics and patterns of education common to most Swiss cantons. Topics of the report include school structure: administration: intercantonal coordination: grading system: elementary, secondary, upper secondary, vocational, special, and teacher education: universities and other higher education institutions: adult education: and educational research. The author stresses that coordination among cantons is a serious problem. The language of instruction is German in 19 cantons, French in five, and Italian in one. In most secondary schools a second national language is compulsory. Primary education provides the first level of compulsory education and lasts from four to six years. Lower secondary education, consisting of general education, extends through grade 9. Upper secondary education includes academic, general, vocational/technical, and teacher training. Teacher education is largely the responsibility of the cantons. Universities are self-governing bodies: all holders of federally recognized Swiss maturity certificates (issued at the upper secondary level) are eligible for unrestricted admission to any university. Educational trends include standardization of terminology, programs, and examinations among cantons: closer cooperation among researchers, teachers, and administrators: more independent study for students: and improvement of inservice and preservice teacher education. (Author/KC)

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EDUCATION AROUND THE WORLD

The Educational System of Switzerland

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THE COUNTRY AND THE PEOPLE

Official Name: Swiss Confederation.

Location: Central Europe, bounded on the north by the Federal Republic of Germany, on the east by Austria and Liechtenstein, on the south by Italy, and on the west by France.

Size: 15,941 square miles.

Major Subdivisions: 23 Cantons, 3 of which are divided into half-Cantons, making a total of 26 political units.

Official Languages: German, French, and Italian. Romansh, a dialect based on Latin, is recognized as a fourth language of the country, but does not have the same status as the other three; e.g., official documents are published in German, French, and Italian only.

Population: 6.5 million, including about 1 million foreigners (1975 estimate).

People: The population reflects the 3 major language areas that surround the country: About 65 percent German-speaking, 18 percent French-speaking, and 12 percent Italian-speaking. Somewhat less than 1 percent speak Romansh, and the remainder speak a variety of languages foreign to Switzerland.

Literacy: 99 percent.

Type of Government: Confederated republic.

Religion: 49.4 percent Roman Catholic, 47.8 percent Protestant, 2.8 percent other confessions or none.

THE BASIC SYSTEM

Historical Background

Switzerland dates its origin as an independent State from August 1, 1291, when the three Cantons bordering Lake Lucerne—Uri, Schwyz, and Unterwalden—formed an "eternal alliance" to carry on their struggle against foreign rule. In 1315 the Swiss defeated the Hapsburg army and secured their independence as the Swiss Confederation. Lucerne joined the Confederation in 1332. By the end of the 16th century the number of Cantons had reached 13. Six were added in 1803 while Switzerland was under the control of French armies, and then three more in 1814 to make a total of 22 Cantons.

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Switzerland regained its independence from France through the Congress of Vienna in 1815 and organized itself as a confederation of 22 Cantons. A Federal Constitution was adopted in 1848 and extensively revised in 1874. The Constitution of 1874, currently in effect, established Federal responsibility for defense, trade, and legal matters, but retained a large measure of sovereignty for the Cantons. All powers not specifically delegated to the Federal Government are held by the Cantons.

An additional Canton (Jura) was established as of September 24, 1978. This 23rd Canton was formed from the three French-speaking districts that border on France in the Canton of Bern, with the capital at Delémont. As of fall 1978, cantonal functions are still in the process of being established in Jura, and the educational system continues to operate in the same pattern as it had when Jura was part of the Canton of Bern, particularly since the school year in Bern begins in the spring. For this reason, Jura will not be considered as a separate Canton in this study.

Three Cantons have divided themselves into half-Cantons: Basel into Basel-City and Basel-District; Unterwalden into Obwalden and Nidwalden; and Appenzell into Appenzell-Inner Rhodes and Appenzell-Outer Rhodes. Since the governmental structure of the half-Cantons is parallel to those of the Cantons, there are 25 administrative units at the cantonal level (the 22 Cantons, with the 23d—Jura—not counted for reasons explained above, plus the three additional units from the split of three Cantons). These units, with their standard Swiss abbreviations, are as follows:[1]

German-speaking (19)
Aargau (AG)
Appenzell, Outer Rhodes (AR)
Appenzell, Inner Rhodes (AI)
Basel-City (BS)
Basel-District (BL)
Bern (BE)
Glarus (GL)
Graubuenden (GR)
Lucerne (LU)
Nidwalden (NW)
Obwalden (OW)
St. Gallen (SG)
Schaffhausen (SH)
Schwyz (SZ)
Solothurn (SO)
Thurgau (TG)
Uri (UR)
Zug (ZG)
Zurich (ZU)

French-speaking (5)
Fribourg (FR)
Geneva (GE)
Neuchatel (NE)
Valais (VS)
Vaud (VD)

Italian-speaking (1)
Ticino (TI)

The development of the Swiss Confederation over 600 years by successive affiliation of separate political entities resulted in a very high degree of cantonal autonomy, especially in educational and cultural affairs, which has been retained to the present time. Swiss education, therefore, consists of 25 virtually independent school systems at the cantonal level. These are again differentiated by language of instruction. In addition, there are substantial differences among the Cantons in geography and population density, which, in turn, affect the cantonal educational systems.

Before the Protestant Reformation, education was conducted primarily in monastery schools. After the Reformation, many of these schools were retained in Catholic areas, while Protestant areas developed public schools. After the French Revolution, public education developed rapidly in all Cantons. Some Swiss educators, such as Pestalozzi in the 19th century and Piaget in the 20th, made contributions of lasting international importance.

Today, Switzerland possesses a highly developed, diversified, and decentralized system of education extending from preschool through the university level and encompassing academic, vocational, and technical training designed to develop the whole spectrum of skills, interests, and abilities of its population to meet the needs of the individual and of the nation. Switzerland has achieved and maintained a very high standard of living. A well-educated population is considered to be the major resource that has made this possible.

Structure

The political, geographic, and linguistic diversity of Swiss education makes it almost impossible to speak of a Swiss educational system in a narrow sense of the term. A brief report such as this must limit itself to the major characteristics and patterns that are common to most Cantons, omitting the numerous local variations. Chart 1 presents a simplified diagram of the general structure of education in Switzerland.

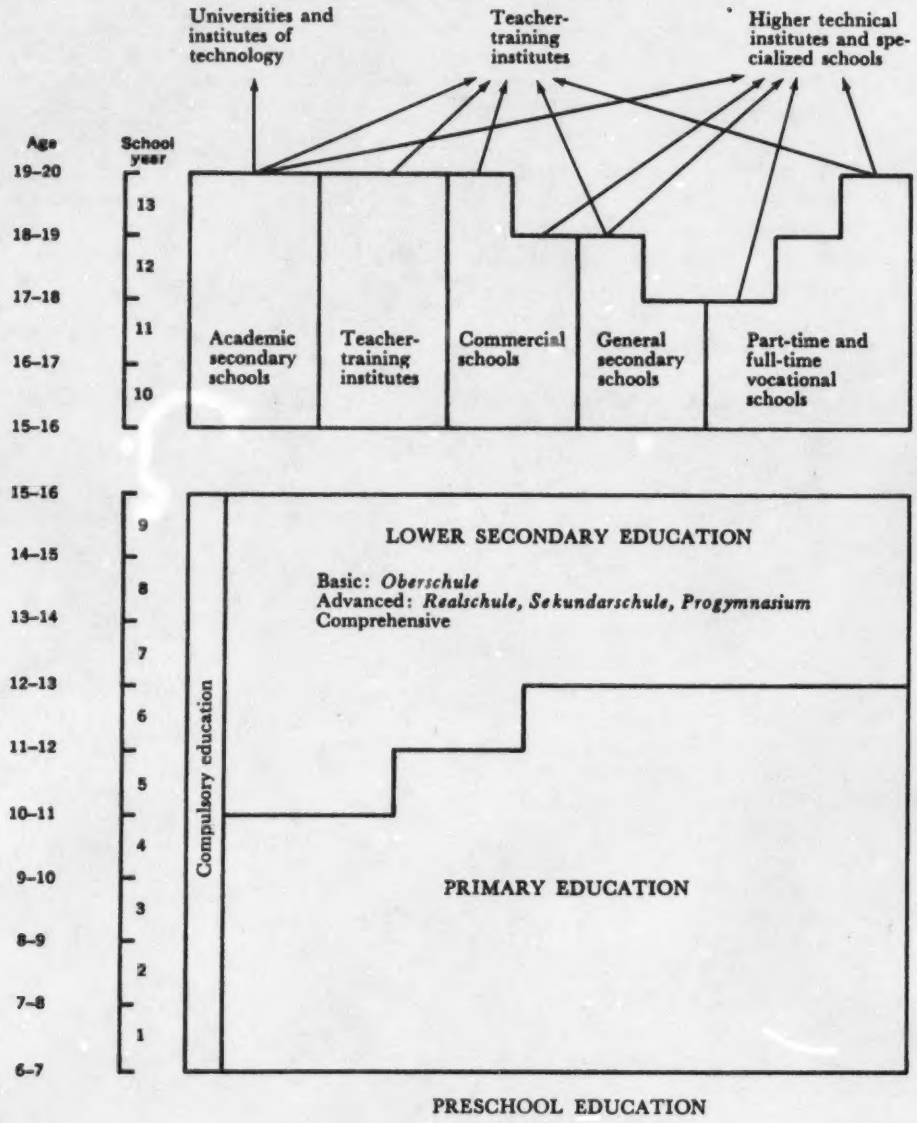
Compulsory education begins at age 6 or 7 and continues for 8 or 9 years, depending on the Canton.

Preschool education under either public or private control is generally offered for children aged 3 to 6. It is readily available in urban areas and is being expanded into rural communities. Primary education varies in duration from 4 to 6 years, depending upon the Canton.

Lower secondary education, which extends to the end of compulsory education (8th or 9th year), varies in difficulty depending upon the type of school. The different types can be classified in two groups—basic schools and advanced schools. Basic schools, which

[1] Spelling follows common English usage.

Chart 1.—Simplified diagram of the structure of education in Switzerland



Source: Adapted from Eugene Egger and Emile Blanc. *Education in Switzerland*. Geneva, 1974. P. 12.

are open to all students who have completed primary school, enable them to fulfill minimum compulsory education requirements, whereupon most begin a combination of apprenticeship and part-time vocational education. The various kinds of advanced schools, which have more difficult curriculums than that of the basic school, frequently require entrance examinations. Within this category some schools are more advanced than others, with the most difficult one preparing students to enter academic secondary schools at the upper secondary level.

Terminology varies from Canton to Canton, and not all Cantons offer all types. In some, notably Geneva and to some extent other French-speaking Cantons, all types of lower secondary education are conducted in a comprehensive school.

The primary and lower secondary levels also include special classes or special schools for all types of handicapped children (discussed later).

The upper secondary (post-compulsory) level can be divided into five major types as shown on the chart: (1) Part-time and full-time vocational education, the former usually accompanied by an apprenticeship varying in length from 2 to 4 years; (2) general education not designed for university entrance, 2 to 3 years in length, and frequently a prerequisite for some types of specialized vocational training; (3) commercial training, leading to a diploma in 3 years (grades 10-12) or to a cantonal maturity certificate in 4; (4) teacher training, generally 4 or 5 years in length beginning with grade 9 or 10, and leading to a diploma or cantonal maturity certificate; and (5) academic secondary education (at a *Gymnasium, gymnase, collége, liceo*), generally grades 9 or 10 to 13, leading to the federally controlled maturity certificate, which is the basic prerequisite for unlimited admission to higher education. In some cases the academic secondary school is organized as a single unit extending through both the lower and upper secondary level (e.g., in the Canton of Uri grades 7-13 are within one school for some types of the *Gymnasium*).

Higher education institutions can be divided into three major groups: (1) Higher technical institutes (or colleges of engineering) and other specialized schools at the postsecondary (not university) level; (2) teacher-training institutions for kindergarten and elementary teachers, teachers of specialized areas such as domestic science, and in some cases teachers for the lower secondary level; and (3) university-level institutions, consisting of 2 Federal institutes of technology, 7 cantonal universities, a school of economics, business and public administration (St. Gallen), and a faculty of theology (Lucerne), now in process of expansion into a general university.

Table 1 presents enrollments at all levels of education in 1976-77.

Table 1.—Enrollments in educational institutions, by level and type of school: 1976-77

Type of school	Number of students
Elementary:	
Preschool	132,536
Primary	503,153
Total	635,689
Lower secondary	
Basic level	148,273
Advanced level	205,806
Comprehensive	6,742
Total	360,821
Special education (primary and lower secondary)	40,155
Upper secondary:	
General education:	
Academic secondary schools	39,619
General secondary schools	11,434
Total	51,053
Teacher education:	
For the preschool level	1,992
For the primary level	12,286
For special subjects	1,645
Total	15,923
Vocational education:[1]	
Agriculture	10,170
Industry and crafts	76,185
Technical fields	14,371
Commerce and administration	56,499
Nursing and health care	13,311
All others	19,913
Total	190,399
Total, upper secondary	257,375

[1]Of all students in secondary vocational education, 89 percent are enrolled in part-time schools.

Source: Eidgenoessisches Statistisches Amt. *Schuelerstatistik: Schuljahr 1967/68*. Bern, 1978, pp. 63-70; *Ibid., Studentenstatistik: Wintersemester 1976/77*. Bern, 1977, p. 9.

Table 1.–Continued

Type of school	Number of students
Higher education:	
Non-university:	
Teacher education	3,720
Technical education	8,046
Commerce and administration	1,989
All others	4,422
Total	18,177
Universities and equivalent institutions	54,198
Total, higher education	72,375
Grand total	1,366,415

Legal Basis[1]

The fundamental document from which education law is derived is the Federal Constitution of May 29, 1874, as amended, which assigns responsibility for education primarily to the Cantons but lists specific responsibilities for the Confederation. Major Federal and cantonal responsibilities are listed in the following articles:

Article 27 authorizes the Confederation to set up a Federal university and other higher education institutions or to subsidize such institutions. The responsibility for primary education, which is to be compulsory and free, is assigned to the Cantons, with the provision that they shall receive financial grants from the Confederation to enable them to fulfill this obligation. (Although the Constitution does not mention secondary education, this is also a responsibility of the Cantons under the principle that responsibilities not specifically assigned to the Confederation are responsibilities of the Cantons.) The Confederation may provide study grants and other forms of aid to education, require and issue instructions on physical training and sports, and promote and subsidize scientific research.

Article 3 empowers the Cantons to require proof of proficiency from persons who wish to practice one of the professions for which advanced education is necessary. Nationally recognized certificates are to be provided through Federal legislation.

Article 37 empowers the Confederation to legislate on vocational training in industry, crafts, trades, agriculture, and domestic work.

Article 45 guarantees all Swiss citizens the right to reside anywhere on Swiss territory.

Article 49 states that freedom of conscience and creed shall be inviolable. Parents and guardians have complete authority over religious instruction for children to age 16.

[1]Adapted from Eugene Egger and Emil Blanc. *Education in Switzerland*. Geneva: Swiss Educational Documentation Center, 1974. pp. 4-7.

Federal laws and regulations have been issued to implement the above articles. Some of the major ones are:

Federal law of 1854, which established the Federal Institute of Technology at Zurich. This law was amended in 1968 to place the Institute of Technology of the University of Lausanne under Federal control, parallel to the one at Zurich.

Federal law of 1877 on freedom of domicile for members of the medical profession, enabling the Confederation to control requirements for admission to medical schools and to issue related regulations for secondary school leaving certificates. (Such regulations were issued in 1906, 1925, 1968, and 1972.)

Federal law of 1903 with amendments to provide financial aid to the Cantons for primary education.

Federal law of 1928 on tuberculosis control, which led to school medical services in all Cantons.

Federal law of 1963, amended 1967 and 1972 on vocational training, superseding the law of 1930, the original legislation on this subject.

Federal law of 1965 to provide financial grants to the Cantons for defraying the costs of study grants.

Federal law of 1968, amended 1972 on aid to universities.

Federal law of 1972 to promote physical education and sports.

The major body of Swiss education law, however, consists of the education laws of the individual Cantons, which define their responsibilities, delegate substantial functions (especially in primary education) to the local communities, and provide for organization of education at all levels.

Administration

Three levels of government participate in school administration: Federal, cantonal, and local (communal). There is no Federal ministry or department of education. Federal responsibilities as defined by the Constitution and implementing laws are assigned to the existing Federal departments most directly concerned.

The primary unit of educational administration is the Canton. Since each Canton and half-Canton is virtually independent in educational and cultural affairs, Swiss education can be said to consist of 25 systems. (As explained earlier, the new Canton of Jura is not being considered as a separate unit in this study.) Within the Canton the administration of primary education is carried out almost entirely by the local communities with varying degrees of cantonal supervision as defined by cantonal education laws.

Local level. – School administration at the local level reflects the historic Swiss tradition of direct democracy. The population as a whole participates in various ways in school affairs. In all Cantons except Geneva (which administers its schools at the cantonal level) the local community or district (*Bezirk*) has a local school board (*Ortsschulbehoerde, Ortsschulvorstand*),[3] generally consisting of lay members who are usually elected by the voters of the district and exercise general authority over elementary schools. In some cases school districts exist separately from the local political subdivisions, while in others the political subdivisions (town, district) also constitute the school district.

Local school boards are responsible first of all for providing the material necessities for schools—buildings, furniture, and teaching and learning materials such as textbooks and other instructional materials. In addition they have responsibilities directly concerned with the instructional program. These include appointment of teachers, approval of the program of studies (generally prepared by the staff of the school in accordance with cantonal directives), general supervision of teachers and pupils, supervision of the school health program, and reports to the Canton on school conditions and problems. Generally members of the boards are required to visit schools, thereby exercising direct lay supervision. Professional supervision is generally exercised by school inspectors employed at the cantonal level.

Cantonal authority over local school administration is never arbitrary and is limited to constitutional provisions and cantonal school law. Beyond these, cantonal authorities may issue recommendations to the local authorities, which, however, do not have the force of instructions or orders.

Cantonal level. – The major organs of government at the cantonal level are the executive council (*Regierungskollegium* or *Regierungsrat*, sometimes called the cabinet) and the legislative body (frequently called the parliament or the great council), both elected by the voters. In 23 Cantons (or half-Cantons), one member of the executive council is the cantonal director of education, and in the other two (Obwalden and Uri) the president of the council serves in this capacity. Drafts of school laws are generally prepared by committees appointed by the executive council and are submitted by the latter to the legislative body for action. In most Cantons all laws except those of very limited scope or minor significance must be submitted to the electorate for approval by direct referendum. Consequently, the electorate must be kept informed and its support must be obtained in order to make any significant changes in the educational system.

Cantonal education laws provide for the organization and administration of education at all levels except as limited by Federal law (e.g., Federal regulation of school leaving certificates and Federal laws on vocational education). While responsibility for elementary education is delegated to local authorities, administration of secondary education and of higher education within the limits of principles of university autonomy is the direct responsibility of cantonal authorities.

The cantonal director of education (*Erziehungsdirektor*) is supported by a staff (*Erziehungsdirektion*). The members of this staff usually are appointed by the cantonal parliament or executive council. In addition to the director, the staff in larger Cantons includes a secretary general, specialists for the various levels of education, and school inspectors. In small Cantons the staff may have only two or three professional members.

Most secondary schools are cantonal schools, administered directly by the cantonal staff through secondary school principals. A few secondary schools (e.g., four in Bern) are communal and are administered jointly by communal and cantonal authorities.

Lay participation at the cantonal level is exercised through supervisory or advisory bodies. Nineteen Cantons have supervisory bodies (*Schulaufsichtskollegien*) of 6 to 12 persons who participate in cantonal school administration with voting rights. The other six have lay bodies that serve in an advisory capacity only.

The Canton also participates directly in the administration of higher education. The three major institutional categories are teacher-training institutes, higher technical institutes and other specialized schools, and university-level institutions. Teacher education is administered directly by the Cantons.

[3]Official Swiss terminology varies widely, not only among the major language groups, but even among Cantons with the same official language. To avoid overburdening the text with non-English terms, Swiss equivalents will usually be given in German, the language of 19 Cantons, a practice followed frequently by Swiss authors writing in English (e.g., Eugene Egger, cf. Selected Reading List). Terms for major school levels or types common to all Cantons will be provided in three languages. Schools or other organizations characteristic of a single language group will be given in the pertinent language. The glossary in three languages augments the number of terms used in the text and will facilitate comparisons among schools and organizational units.

Higher technical institutes may be administered by a single Canton or, in some cases, may involve joint participation by several Cantons. In the latter category, such institutions are usually administered primarily by the Canton in which they are located with some participation by the other Cantons involved. For example, the Central Swiss Technical College at Lucerne (*Zentralschweizerisches Technikum Luzern*) is administered by the Canton of Lucerne with participation by Uri, Schwyz, Obwalden, Nidwalden, Zug, Valais, and the city of Lucerne. The two half-Cantons of Basel have a single college of engineering (*Technikum beider Basel*). The Swiss College of Graphic Arts in Lausanne (*Ecole superieure suisse des arts graphiques ETS*) is administered by the Canton of Vaud and serves all of Switzerland.

At the university level, cantonal administration is coordinated with the principles of university autonomy. The two Institutes of Technology are administered at the Federal level. The seven universities (Zurich, Bern, Basel, Fribourg, Geneva, Lausanne, and Neuchatel) are administered by the Cantons in which they are located although they also provide higher education facilities to the Cantons without universities. The School of Economics, Business, and Public Administration is administered jointly by the Canton and City of St. Gallen, and the new university at Lucerne will be administered by a group of Cantons headed by Lucerne.

Federal level.—The most important functions at the Federal level are regulation of secondary school maturity certificates, (which has had a marked influence on the standardization of secondary education), extensive participation in vocational education, provision of financial aid to the Cantons for primary education, administration of study grants at the secondary and higher education level, administration of the two Federal Institutes of Technology, and general support of higher education and research.

Control of secondary school maturity certificates is exercised by a special commission established for that purpose. Other functions are distributed by Department as follows:

Department of the Interior: Support of higher education and research, exercised by the Office for Science and Research (*Amt fuer Wissenschaft und Forschung*) and an office for Federal Institutes of Technology and Affiliated Institutions (*Eidgenoessische Technische Hochschulen mit Annex-Anstalten*). The Department also administers the national archives, the national library, and the national museum.

Department of Public Economy: Administration of agricultural education through the Division of Agriculture and Agricultural Research (*Abteilung fuer Landwirtschaft und Forschungsanstalten*) and of vocational education through the Office of Industry, Trades, and Labor (*Bundesamt fuer Industrie, Gewerbe, und Arbeit*).

Military Department: Administration of the Federal School of Physical Education and Sport (*Eidgenoessische Turn-und Sportschule*).

Intercantonal Coordination

Because of the great diversity and decentralization of Swiss education, coordination among Cantons is a serious problem, one that has become increasingly acute in recent years as the population has become more mobile and the society more complex. An important step toward coordination was already taken in 1897 with establishment of the Swiss Conference of Cantonal Directors of Education (*Schweizerische Konferenz der Erziehungsdirektoren*, frequently shortened to Conference of Education Directors and written as *Erziehungsdirektorenkonferenz, EDK*, or *Directeurs de l'instruction publique, DIP*). The conference maintains a headquarters in Geneva, and the directors meet at least once a year. Meetings are also held by the secretaries-general of cantonal departments of education, by specialists for the various levels (elementary, secondary, vocational, and higher education), and by school inspectors. The conference is divided into four geographic regions which, in addition to participating in the work of the organization as a whole, carry on projects of concern to their particular regions. The regions are: (1) the French-speaking Cantons and the Italian-speaking Ticino, (2) the Northwestern Region, (3) the Central Region, and (4) the Eastern Region.

Two other organizations also perform important coordination functions. At the secondary level the Conference of Swiss Secondary School Directors (*Konferenz Schweizerischer Gymnasialrektoren*), established in 1913, has played an important leadership role among academic secondary schools and has influenced the development and revision of Federal regulations for secondary school leaving (maturity) certificates. Coordination at the university level is achieved primarily through the Swiss Central Office for University Affairs (*Schweizerische Zentralstelle fuer Hochschulwesen*), established in 1920 with headquarters in Zurich.

Concordat on School Coordination. (*Konkordat ueber die Schulkoordination.*)—An agreement among the Cantons, designated officially as the Concordat on School Coordination, was adopted unanimously by the Conference of Education Directors (EDK) on

October 29, 1970, and became effective on June 9, 1971, with approval of the Federal Council and ratification by 10 Cantons. By 1974, 20 Cantons had accepted the Concordat.

The objectives of the concordat are to develop common policies among the Cantons on matters such as the entrance age for elementary education, duration of compulsory schooling, length of schooling required for the secondary school maturity examination, beginning of the school year (spring or fall), coordination of curriculum (especially in mathematics and in the introduction of the second foreign language), transferability among schools, standardization of terminology for similar types of schools, mutual recognition of diplomas, and cooperation in planning, research, and statistics. Although major differences among the Cantons still exist, the concordat is proving to be an important instrument for achieving closer coordination and articulation throughout the entire educational system.

Swiss Documentation Center for Teaching and Education.—In 1962 the Federal Government and the Conference of Education Directors (EDK) jointly established the Swiss Documentation Center for Teaching and Education (*Schweizerische Dokumentationsstelle fuer Schul-und Bildungsfragen*; *Centre suisse de documentation en matiere d'enseignement et d'education*), generally called the Swiss Educational Documentation Center, with headquarters in Geneva. The center is the major source of information on Swiss education. Through its documentation and information service, the center supports the work of the Conference of Education Directors, thereby contributing to coordination of education among the Cantons.

Prior to 1967 there was no central source for school statistics in Switzerland. In 1967 the center assumed responsibility for collecting school statistics and from 1967 to 1976 it was the sole source of school statistics on a national basis. Beginning with the 1976-77 school year, the task of collecting and compiling national school statistics was assigned to the Federal Statistical Office.

The director of the center serves as the executive secretary of the Swiss Conference of Cantonal Directors of Education and normally represents Switzerland at international education conferences and in international organizations.

Finance

The Federal Government, the Cantons, and the local communities or districts all participate in financing public education. In 1974 the total expenditure for public education and research at all levels was 7.42 billion Swiss francs,[4] approximately 5 percent of the gross national product and about 20 percent of the total expenditures of the Confederation, the Cantons, and the communities. Table 2 presents a distribution of expenditures by source and level of education. Expenditures by private schools are substantial, but statistics are not available.

Table 2.—Distribution of education and research funds by source and by level of education: 1974.

Level	Total (in billions of francs[1])	Percent of total funds by source		
		Federal	Cantonal	Local
All levels	7.42	19	45	36
Elementary education	3.86	1	40	59
Secondary education	0.90	4	87	9
Vocational education	0.82	25	45	30
Higher education and research	1.65	67	33	0

[1]Exchange rate in 1974, 1 Swiss franc = $.337 U.S.; in January 1979, 1 Swiss franc = $.617 U.S.

Source: Adapted from Eugene Egger, Emile Blanc, and Ursula Rohrer. *Das Schulwesen in der Schweiz.* Genf. Schweizerische Dokumentationsstelle fuer Schul- und Bildungsfragen, 1976. P. 46.

Language of Instruction

The language of instruction is German in 19 Cantons, French in 5, and Italian in 1. Romansh is used as the language of instruction at the elementary level in Romansh-speaking areas, primarily in Graubuenden, with German as a second language, but at the upper secondary level German becomes the language of instruction.

In secondary schools with more than minimum curricular requirements, a second national language is compulsory: French in German areas, German in French areas, and either French or German in the Italian area. All secondary school maturity examinations include at least two national languages.

At the university level, the primary language of instruction is German at the universities of Basel, Bern, and Zurich, the Federal Institute of Technology at Zurich, and the School of Economics, Business, and Public Administration at St. Gallen. Since the Institute of Technology at Zurich was the

[4]Exchange rate in 1974, 1 Swiss franc = $.337 U.S.; in January 1979 1 Swiss franc = $.617 U.S.

only Federal institution until 1968, it also used French and Italian extensively. The language of instruction is French at the universities of Geneva, Lausanne, Neuchatel, and Fribourg and at the Federal Institute of Technology at Lausanne. Since the Canton of Fribourg has both large French and German populations, the university uses some German along with French as the language of instruction. The university also participates in inter-university activities of German- as well as of French-speaking universities (e.g., in an association of German-speaking universities, *Koordinationskonferenz der deutschschweizer Hochschulen*, organized in 1977).

Academic Calendar

In some Cantons the school year starts in the fall, in others in the spring. A primary objective of the Concordat on School Coordination was to have all Cantons start the school year between August 15 and October 15. The Concordat received a major setback when the two most populous Cantons (Zurich and Bern) rejected this provision. Consequently, the timing of the school year still varies substantially among Cantons.

At the university level, the academic year is divided into two semesters, the first beginning about October 1 (*Wintersemester*), and the second in the early spring (*Sommersemester*). Some universities offer short courses in the summer.

Grading System

Almost all Cantons follow a 6-point grading scale at the elementary and secondary level: 6—best (excellent), 5—good, 4—satisfactory, 3—unsatisfactory, 2—inadequate, 1—completely unsatisfactory (failure). There are a few exceptions (e.g., the Canton of Vaud uses a 10-point system with 10 the best and 1 representing failure).

Decisions on promotion from grade to grade are made within individual schools. Where entrance examinations are required to proceed from one level of education to another (e.g., from the primary to a lower secondary level with an entrance examination), examination standards are determined by cantonal authorities in cooperation with the schools, but the examinations are administered by the schools. Even at the certificate of maturity level (academic secondary school leaving certificate), where examination requirements are established by the Federal Government, the largest number of examinations are conducted and certificates issued by the cantonal academic secondary schools (see p. 13).

At the university level, a grade scale from 4 (best) to 1 (passing) are normally used. Final university grades are usually designated as *summa cum laude* (with highest honors), *magna cum laude* (with high honors), *cum laude* (with honors), or *rite* (in the ordinary manner).

ELEMENTARY EDUCATION

Elementary education includes preschool and primary education. The former is generally offered in kindergartens or infant schools.

Traditionally the primary school had included the total full-time compulsory education program, beginning at age 6 or 7 depending on the Canton, and continuing for 7, 8, or 9 years. The Concordat on School Coordination recommends 9 years of compulsory education beginning at age 6. Progress toward this objective is being made, so that the duration of compulsory education today is either 8 or 9 years beginning at age 6 or 7.

In current usage the term "primary education" is generally limited to that portion of the compulsory education period that provides a common program of studies for all children with no differentiation in terms of future educational or vocational objectives. This varies from 4 to 6 years. What was formerly considered the upper level of the primary school is now included in the lower secondary level, extending from the primary school as defined above to the end of compulsory education, which is moving toward the total of 9 years shown on chart 1.

The Concordat has recommended a standard school year of 38 weeks for both elementary and secondary education, designation of vacation periods being left to the Cantons. The school week usually includes 6 days, with Wednesday and Saturday afternoons free. In some regions a 5-day week is being introduced with a full free day on Saturday. Class periods generally are 45 to 50 minutes in length. The primary level usually has from 20 to 30 class periods per week, varying with the grade level. The secondary has from 30 to 36 periods.

Teachers generally have 28 to 30 periods per week at the compulsory level, 22 to 26 at the upper secondary level.

Coeducation is the common pattern at the compulsory school level and is being introduced at the upper secondary school level.

Preschool Education

Preschool education (*Vorschulische Erziehung*) is offered in kindergartens or infant schools for children beginning at age 3 or 4 years, but emphasis is placed on the 2 upper years. Although preschool education is voluntary, an estimated 95 percent of all 5-year old children in the cities attend these schools. The value of preschool education is generally recognized throughout the country, and major efforts are being made to provide these opportunities for children in rural and mountainous areas. Concurrently, training facilities are being expanded for kindergarten teachers, who are in short supply.

Kindergartens in German-speaking areas tend to maintain a clear distinction between preschool and primary school programs. In French-speaking areas, kindergarten programs frequently include some formal instruction in reading and the rudiments of arithmetic. The presence of large numbers of foreign workers with their families in Switzerland in recent years has added an additional task to preschool programs—namely, teaching the local Swiss language to young foreign children who speak a non-Swiss language at home.

Kindergartens or infant schools may be either public or private. In the former case, costs are borne by the Canton (e.g., Geneva and Basel-City) or by local governments. Attendance is free. Private kindergartens may be operated by individuals, groups of parents, social organizations, or churches. They generally charge fees, although many receive some support from public funds. Enrollment at the preschool level in 1976-77 was 132,536 (table 1).

Primary Education

The primary school (*Primarschule, école primaire; scuola elementare*) provides the first level of compulsory education, lasting for 4 years in two Cantons (Bern and Basel-City), 5 years in five Cantons (Basel-District, Schaffhausen, Aargau, Ticino, and Neuchatel), and 6 years in 17 Cantons. Until recently one Canton (Vaud) ended the undifferentiated primary period at the end of the third year, but experiments are now in progress to extend this period to 5 or 6 years. A final decision on the duration has not been made.

Typically the primary school consists of self-contained classrooms for each grade, with one teacher teaching all subjects. In some rural areas, primarily in mountainous regions, small 1- or 2-room schools that offer the total primary program are still in existence. However, these are being eliminated by forming school centers and by redistricting.

The objective of the first year of schooling is to provide an orderly transition from play activities to organized school tasks, to develop vocabulary and self-expression, and to introduce reading and arithmetic. In the second and third year, major emphasis is placed on the native language. In German-speaking Cantons this includes transition from spoken dialects to high German. Arithmetic, local

Table 3.—Number of hours per week in each subject in the primary school of the Canton of Lucerne: 1977

Subject	Grade 1		2		3		4		5		6	
	b[1]	g[1]	b	g	b	g	b	g	b	g	b	g
Total	24	23	25	25	25	25	27	28	30	30-31	30	30-31
Religion	3	3	3	3	3	3	3	3	3	3	3	3
Language and knowledge of homeland (reading, writing, oral)	9	9	8	8	8	8	7	7	7	6-7	7	6-7
Arithmetic	5	5	5	5	5	5						
Arithmetic/geometry							5	5	6	6	6	6
Drawing, handicraft, design	3	3	4	2	4	2	3	2	3	2	3	2
History, geography, nature study							3	3	5	5	5	5
Writing							1	1	1	1	1	1
Singing	1	1	2	2	2	2	2	2	2	2	2	2
Gymnastics	3	2	3	2	3	2	3	2	3	2	3	2
Needlework, etc.	-	-	-	3	-	3	-	3	-	3	-	3

[1]b = boys; g = girls

Source: Swiss Educational Documentation Center, Geneva (single sheet).

geography (*Heimatkunde*), writing, drawing, singing, and physical education round out the program. The remainder of the primary stage continues and expands the programs of the lower grades and prepares the pupils for the differentiated patterns of the secondary school.

Table 3 presents the program of studies of the primary school of the Canton of Lucerne. Emphasis throughout the primary level is clearly on German and arithmetic.

Upon completing primary school all children proceed automatically to the lower secondary level in order to fulfill the compulsory education requirement. Differentiation then begins on the basis of individual differences in ability and future vocational or academic objectives.

The total enrollment in primary education in 1976-77 was 503,153 (table 1).

SECONDARY EDUCATION

Secondary education includes all general and vocational/technical education from the end of primary school to the beginning of higher education. The lower secondary level consists entirely of general education and extends through the compulsory school period, shown on the chart as grade 9, the typical level, although compulsory education terminates with grade 8 in some Cantons. The upper secondary or post-compulsory level can be classified as academic, general, vocational/technical (including commercial), and teacher-training. This level typically begins with grade 10 as shown on the chart (grade 9 in Cantons with 8 years of compulsory education) and continues for 2, 3, or 4 years depending on the type of program.

Chart 1 represents a simplification of the actual situation. In some cases, programs extend through both the lower and upper secondary levels, in some cases from the upper secondary into the higher education level. Numerous variations exist among the Cantons. Major differences that are not reflected in the simplified chart will be pointed out in subsequent sections of this report.

Lower Secondary Education

The broad objectives of the lower secondary level are to provide not only minimum educational programs for all children through the compulsory school level but also programs of greater difficulty leading to the highly differentiated offerings of the upper secondary level. Thus the process of selection begins at this level.

The basic type (*Grundansprueche*) is in fact the former upper primary school that extended through the compulsory school period. Terminology for this level varies widely. In some Cantons the term *Primarschule* has been retained, whereas in others this level is called the upper school (*Oberschule*). Other designations are *Abschlussklassen, Berufswahlklassen; enseignement secondaire du 1er cycle, classes pratiques; scuola maggiore*. In the Cantons that have introduced a comprehensive lower secondary school, the designation usually is the orientation cycle (*cycle d'orientation*).

The program of studies of the basic type consists of the native language, mathematics, elementary science, geography, history, drawing, writing, singing, physical education, and industrial arts or domestic science, totaling about 32 hours per week.

Upon completing this type, pupils generally proceed to an apprenticeship combined with part-time vocational education or to nonvocational continuing education.

Pupils with qualifications and aspirations for a more difficult type of education generally enter the advanced type (*erweiterte Ansprueche*) of lower secondary school. This type includes schools of a considerable range of difficulty, with the *Realschule* at the lower end of the scale and the *Sekundarschule* usually more toward the middle. In French-speaking Cantons a school of this type may be called the *collège moderne* or *enseignement secondaire inférieure, classes modernes*; in Italian, *scuola maggiore*. An entrance examination may be required.

The most difficult type of advanced lower secondary education, frequently called the lower middle school (*untere Mittelschule, Kantonschule, Progymnasium, Untergymnasium; enseignement secondaire inférieur, sections classiques et scientifiques; ginnasio*) is to prepare students for admission to the academic upper secondary schools that lead to university admission. All schools in this category require entrance examinations.

The curriculum continues to emphasize the native language and adds a second national language. It also raises the content level of other subjects such as history, geography, mathematics, and science.

Advanced lower secondary education is the preparatory stage for a wide variety of schools and occupations: Vocational programs requiring more than basic lower secondary, full-time vocational schools, teacher-training institutes, commercial schools, and some academic secondary schools. Table 4 presents the programs of studies for the

Sekundarschule (grades 7-9) in the Canton of Lucerne.

Table 4.—Number of hours per week in the lower secondary school (*Sekunderschule*), grades 7-9, in the Canton of Lucerne: 1977

Subject	Grade[1]					
	7		8		9	
	boys	girls	boys	girls	boys	girls
Total	33	32-33	34	34-35	28-29	31½-32½
Religion	2	2	2	2	2	2
German language	6	6	5	5	5	5
French language	5	4	5	4	4	4
Arithmetic and algebra	4	4	4	4	4	4
Geometry	2	2	2	2	2	-
Bookkeeping	1	-	1	-	-	-
History and citizenship	2	2	2	2	2	2
Geography	2	2	2	2	2	2
Nature study	2	2	2	1-2	3	1
Writing	1	-	1	-	-	-
Drawing and design	2	2	2	2	1-2	1-2
Technical drawing	-	-	2	-	-	-
Singing	1	1-2	1	1-2	1	1
Gymnastics	3	2	3	2	2	2
Needlework, etc.	-	3	-	3	-	3
Home economics	-	-	-	4	-	4½

[1]Numbered 1, 2, and 3 in the school.

Source: Swiss Educational Documentation Center, Geneva (single sheet).

The lower middle school may be organized as an integral part of the upper secondary school. For example, the Canton of Solothurn has an 8-year *Gymnasium* based on 5 years of primary education. More frequently, the lower middle school is separate and comprises grades 7 to 9 or 7 and 8. Table 5 presents the 2-year program (grades 7 and 8) of the *Untergymnasium* of St. Gallen.

Total enrollments in all types of lower secondary schools in 1976-77 was 360,821 (table 1).

Upper Secondary Education

The five types of secondary schools at the post-compulsory level (as shown in chart 1) are the academic secondary schools, teacher-training institutes, commercial schools, general secondary schools, and part-time and full-time vocational schools.

Academic secondary schools.—Academic secondary schools as a group are generally called middle

Table 5.—Number of hours per week in lower secondary level (*Untergymnasium*) of the academic secondary school of the Canton of St. Gallen, grades 7 and 8: 1977

Subject	Semester			
	1	2	3	4
Total	33	34	35-34	33
Religion	2	2	2	2
German	4	4	4	4
Latin	6	6	6	6
French	3	4	5	4
History	2	2	2	2
Geography	2	2	2	2
Mathematics	5	5	5	5
Biology and nature study	2	2	2	2
Drawing	2	2	2	2
Music	2	2	2-1	1
Gymnastics	3	3	3	3

Source: Swiss Educational Documentation Center, Geneva (single sheet).

schools (*Mittelschulen*) or maturity schools (*Maturitaetsschulen*). Specific names include *Gymnasium, Oberrealschule, Kollegium, hoehere Mittelschule, Kantonschule; collège, académie, gymnase; liceo*. With admission based on completion of primary school in a few cases, but more generally on completion of the advanced types of lower secondary school, they provide programs designed specifically to prepare students for unrestricted university admission. They usually extend through the 12th or 13th year of full-time schooling and terminate with the certificate of maturity (*Maturitaetsausweis; maturité*).

In general, academic secondary schools are administered by cantonal authorities, although occasionally by municipalities or nongovernmental agencies such as churches. The Federal Government has no direct responsibility for the schools. However, since each citizen can practice his profession anywhere in Switzerland, the Federal Government has become involved in standardizing medical education. One method of achieving this was through regulating the requirements for the maturity certificate.

Current Federal regulations controlling maturity certificates (*Verordnung ueber die Anerkennung von Maturitaetsausweisen*) were issued in 1968 and amended in 1972. These regulations have a profound effect on all academic secondary education and also have influenced university programs.

The Federal Government recognizes five types of maturity certificates reflecting different program emphases, as follows:

A. Greek-Latin
B. Latin-modern language
C. Mathematics-science
D. Modern language
E. Economics and sociology (*Wirtschaftswissenschaft*)

Types A, B, and C represent programs that have been standard for many years. Types D and E, added by the amendments of 1972, provided access to higher education for students who specialized in modern languages but did not also take Latin and for those in fields with a social science emphasis.

Candidates for all five types of certificates are examined in their native language (German, French, or Italian); in a second official Swiss language; and in history, geography, mathematics, physics, chemistry, drawing, and music. In addition, candidates for type A are examined in Latin and Greek; for type B, in Latin and the third national language; for type C, in descriptive geometry and the third national language or English; for type D, in English or the third national language or another modern language (Spanish, Russian); for type E, in economics and the third national language.

Maturity certificates are awarded from three sources, with the first awarding the largest number: (1) Cantonal academic secondary schools and a small number of private schools recognized for this purpose by the Federal Government (e.g., the *Gymnasium* of the monastery at Einsiedeln); (2) private schools whose students take maturity examinations administered by the Federal Maturity Examination Commission; and (3) evening secondary schools administered by large cities (Zurich, Basel, Geneva, Bern, Lausanne, St. Gallen, and Lucerne) that prepare young adults for the standard maturity examinations. All federally recognized types qualify successful candidates for unrestricted admission to all faculties of the universities.

In addition to the federally recognized certificates, some Cantons issue cantonal maturity certificates (e.g., in teacher-training or commercial programs), which qualify students for admission to some university faculties but do not provide unrestricted access to higher education.

Table 6 presents the program of studies for types A, B, and C in Geneva.

In 1976-77, upper academic year, secondary school enrollments were 39,619 (table 1). In 1975-76, 7,337

Table 6.—Number of hours per week in an academic secondary school (*College de Geneve, Gymnase*), in type A (classical), B (Latin), and C (scientific), grades 10 to 13, Canton of Geneva: 1977

Subject	Classical (A)						Latin (B)				Scientific (C)			
	Grade[1]													
	1	2	3L[2]	3S[2]	4L	4S	1	2	3	4	1	2	3	4
Total	32	32	32	32	32	32	30	30	31	30	29	32	33	29
French	4	4	4	4	4	4	5	5	4	4	5	4	4	4
German	3	3	3	3	3	3	4	4	3	3	4	4	3	3
Latin	5	5	5	4	5	4	5	4	4	5	-	-	-	-
Greek	6	5	6	4	6	4	-	-	-	-	-	-	-	-
English[3]	2	2	2	2	-	-	4	3	3	3	4	4	3	3
Mathematics	4	4	3	4	3	5	4	4	4	4	6	5	6	5
Descriptive geometry	-	-	-	-	-	-	-	-	-	-	-	-	2	2
Geography	2	-	2	2	-	-	-	2	3	-	-	2	3	-
History	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Philosophy	-	-	2	2	3	2	-	-	2	2	-	-	-	2
Physics	-	-	1	2	2	3	-	-	-	1	-	-	1	1
Chemistry	-	-	-	-	2	3	-	-	-	3	-	2	3	3
Biology	-	3	-	1	-	-	2	2	2	-	2	3	2	-
Music	2	2	-	-	-	-	2	2	-	-	2	2	-	-
History of art, music, theater	-	-	-	-	-	-	-	-	-	1	-	-	-	1
Physical education	2	2	2	2	2	2	2	2	2	2	2	2	2	2

[1]Numbered 1 through 4 in the school.
[2]L = literary option; S = scientific option.
[3]In the Latin and scientific types, Italian may be substituted for English.
Source: Swiss Educational Documentation Center, Geneva (single sheet).

federally recognized maturity certificates were awarded, distributed among the five types as follows: A—501; B—3,709; C—2,282; D—312; and E—533. Types B and C accounted for 82 percent of the total.

General secondary education.—A number of Cantons maintain general secondary schools that do not lead to a maturity certificate but usually provide 2- or 3-year programs leading to a diploma. Consequently as a group they are called diploma middle schools (*Diplommittelschulen*) and the education level achieved by their graduates is called middle maturity (*mittlere Reife*). These schools were developed primarily to provide general education for girls and women who did not enroll in the academic secondary school but who desired more education than that provided by the compulsory school, or who needed additional general education as a prerequisite for some specialized programs (e.g., preparing them to be kindergarten or domestic science teachers). These objectives are indicated in the titles of some of the classes and schools: Continuation, connecting, or preparatory classes (*Fortbildungs-Anschluss- und Vorbereitungsklassen*); schools for daughters (*Toechterschulen*); and higher secondary school, general cultural section (*Gymnase: Section culture générale*).

Completion of the programs of these schools leads to intermediate professions generally in paramedical, social welfare, and educational fields, the latter usually in kindergartens, domestic science, and art schools. They are gradually losing their purely "daughter" school character and becoming coeducational. In 1976-77 they enrolled 11,434 students.

Vocational and technical education (including commercial schools) and teacher education will be discussed in separate sections.

VOCATIONAL EDUCATION

Vocational education (*berufliche Ausbildung* or *Berufsbildung*) is a broad concept including all types of upper secondary education except general education and teacher education, and extending in some cases (notably in technical fields) into the tertiary level. Both the Federal Department of Public Economy, which has primary responsibility for Federal participation in vocational education (see p. 7), and the Federal Statistical Office use the term in this sense. Vocational education is job-oriented, emphasizing practical training in a specific vocation, accompanied by whatever additional education is needed to enter the vocation. No sharp distinction between vocational and technical education is made, the latter being classified as a subdivision of the former.

Most of vocational education has been regulated by the Federal Government since 1930 and is presently operating under the vocational education law of September 20, 1963 (effective April 15, 1965), and the implementing regulations of March 30, 1965. A draft revision of existing laws and regulations, Report on a New Federal Law for Vocational Education (*Botschaft zu einem neuen Bundesgesetz ueber die Berufsbildung*), was presented by the Government to the Federal Assembly (Legislative Body) on January 26, 1977. As of late 1978, the draft was still under discussion.

In 1975 regulations were in effect for vocational education in 269 occupations, including preservice and inservice education in technical fields (e.g., engineering technologies), industry, trades, commerce, banking, insurance, transportation, home economics, and other service occupations. They regulate apprenticeship contracts, vocational schooling, terminal examinations, inservice training, and Federal subsidies.

The vocational education law does not regulate training for occupations in the fields of education, nursing, social welfare, science, art, agriculture, forestry, and fisheries.

Administration of the Federal law is the responsibility of the Cantons, which draw for assistance upon the Federal Department of Public Economy with its Office of Industry, Trades, and Labor, and Division of Agriculture. The Cantons also encourage the active participation of labor and trade organizations.

The most common form of vocational education consists of apprenticeship in a public or private enterprise with the accompanying general or theoretical education being offered in part-time vocational schools. A second form combines both practical and theoretical training in full-time vocational schools.

Apprenticeship with Part-Time Vocational Education

In 1975 approximately 70 percent of the boys and 33 percent of the girls who completed the compulsory school level entered an apprenticeship combined with part-time vocational education. The practical training is supervised by an apprenticeship instructor (*Lehrmeister*) in a public or private enterprise according to specific requirements laid down by Federal regulations. The theoretical subject matter as well as additional general education required for

the specific trade or occupation is offered in a part-time vocational school (*Berufsschule*), usually 1 day per week.

The major types of part-time vocational schools are trade and industrial schools (*Gewerbliche Berufsschulen*), commercial schools (*Kaufmaennische Berufsschulen*), and schools of design (*Kunstgewerbeschulen*). The latter frequently are full-time schools. Corresponding designations in French and Italian are, respectively, *apprentissage et cours complementaires professionales, cycle d'orientation commerciale*, and *tirocinio e corsi per apprendisti, scuola commerciale*. The length of apprenticeship varies from 2 to 4 years, depending on the field. Upon completing the program students take a terminal examination (*Lehrabschlusspruefung*) and receive a Federal certificate of proficiency (*Eidgenoessisches Faehigkeitszeugnis*).

Large industries frequently conduct a complete vocational education program for their apprentices, including the part-time theoretical and general training required by Federal regulations.

In 1968 a more advanced type of part-time vocational school for especially able students, known as the vocational middle school (*Berufsmittelschule*), was introduced to strengthen the theoretical and general education of the vocational school. The vocational middle school usually consists of three sections—general, technical, and design. The course typically lasts 6 semesters, each of 20 weeks duration, with 1 full day or its equivalent of instruction per week. Common subjects are the native language, foreign language, and current history. These are augmented by subjects dealing with the particular trade and by some electives.

Secondary Full-time Vocational Schools

Full-time vocational schools may be cantonal, municipal, or private. They receive Federal financial support and in many cases some support from trade associations.

Full-time vocational schools include a great variety of types, which may, however, be classified into two groups by level—those that accept students upon completion of compulsory education, and those that require a higher level of training or experience for admission. The former include commercial schools leading to a diploma, transportation and communication schools, trade and industrial schools, schools of design, and schools of agriculture and home economics. The latter include higher technical institutes and other advanced specialized schools that are shown on the chart at the postsecondary level. They are not, however, of university level.

Commercial schools.—Full-time commercial schools generally offer a 3-year program leading to a diploma (*Handelsdiplomschulen*) or a 4-year program leading to a cantonal certificate of maturity (*Handelsmaturitaetsschulen*). Comparable schools in French Cantons and in Ticino are, respectively, *école supérieure de commerce* and *scuola superiore di commercio*. Both types of programs may be offered in the same school. The diploma is the equivalent of the certificate of proficiency awarded by the corresponding part-time school with apprenticeship (*Kaufmaennische Berufsschule*). Graduates generally enter business or continue their education. Graduates of both the diploma and the maturity schools may enter advanced programs in the same field. Holders of the cantonal certificate of maturity also may enter some faculties of the universities. The diploma schools are considered part of vocational education. The maturity programs, however, are considered part of general education leading to higher education.

The addition in 1972 of the E-type maturity certificate (economics and sociology) to the federally recognized certificates provided a certificate of maturity similar to that of the commercial school but leading to unrestricted rather than limited university admission. The type E certificate is usually offered in academic secondary schools with a business emphasis (*Wirtschaftswissenschaftliches Gymnasium*). There is substantial duplication in the program of these schools and that of the *Handelsmaturitaetsschule* (the commercial school with the 4-year program). Since only the former leads to a certificate of maturity that provides unrestricted university admission, it is conceivable that it will eventually replace the latter entirely.

Transportation and communication schools.—These schools (*Verkehrsschulen*) are often organized under a common administrative staff with a commercial school. They provide a 2-year program leading to a diploma specifically designed for entrance into the Federal railroad, communications (mail, telegraph), and excise tax service.

Trade and industrial schools.—In a number of trades and industries, full-time schools offer combined programs of practical, theoretical, and general education equivalent to the dual system of apprenticeship and part-time schooling. Notable among these are the workshops known as *Lehrwerkstaetten* in German, *ateliers* in French, and *scuole cantonale*

d'arti e mistiere in Italian. These provide training in metal trades, textiles, and other fields leading to the Federal proficiency certificate. In reality, the full-time schools provide a broader program than the part-time schools so that their graduates generally have an advantage in applying for admission to more advanced schools.

Schools of design.—The schools of design (*Kunstgewerbeschulen, beaux arts, arts decoratifs, centro scolastico industrie artistiche*) offer programs in graphic arts and design, generally in 3-year programs leading to a diploma. Graduates may enter numerous occupations in industry or continue to advanced education, especially in the fine arts.

Schools of agriculture and home economics.—The schools of agriculture (*Landwirtschaftsschulen, écoles d'agriculture, scuole agricole*) are administered by the Division of Agriculture of the Federal Department of Economics. They generally offer full-time programs, in winter months only, over a 2-year period. Various programs in home economics are offered by cantonal and municipal schools (*Hauswirtschaftsschulen, écoles ménagères, scuole dieconomia domestica*). Numerous Cantons combine agricultural or home economics education with additional general education in some schools (*Allgemeine und landwirtschaftliche Fortbildungsschulen, hauswirtschaftliche Fortbildungsschulen; écoles complementaires agricoles ménagères et de culture générale*).

In 1976-77 there were 190,399 students engaged in vocational education at the secondary school level, 89 percent of whom were in part-time programs (table 1).

Postsecondary Vocational Schools

Vocational and technical schools with entrance requirements higher than completion of compulsory schooling occupy a position between the upper secondary and university levels. They are shown on the chart as higher technical institutes and specialized schools. Although their primary purpose is to train students for advanced positions that do not require a university degree, they also qualify students in many cases to matriculate at the universities or institutes of technology. The major groups in this category are the higher technical institutes, the technicians schools, and the higher schools of economics and administration.

Higher Technical Institutes or Colleges of Engineering.—The higher technical institutes (*Hoehere Technische Lehranstalten, HTL; ecoles techniques superieures, ETS; scuole tecnica superiore, STS*) frequently called colleges of engineering (*Ingenieurschulen*) or *Technikum*, train engineering staffs beyond the scope of secondary technical education but below that of the university. Table 7 presents the 15 full-time institutes in this group and the 8 equivalent part-time or evening institutes that have been developed in recent years. The latter meet the standards of the former but require a longer period of time to complete the program.

Table 7.—Higher technical institutes (*Hoehere Technische Lehranstalten, HTL*) with enrollments: 1975

Location	Enrollment
Total	*6,886*
Full-time	
Total	*5,118*
Winterthur	706
Bienne	404
Burgdorf	524
Fribourg	196
Geneva	985
Le Locle	311
Lugano/Trevano	89
Lausanne/Yverden	225
Lucerne	317
St. Imier	37
Basel-Muttenz	460
Brugg-Windisch	283
Buchs	215
Rapperswil	319
Lausanne (École romande des arts graphiques)	47
Evening	
Total	*1,768*
Zurich	595
St. Gallen	148
Bern	315
Geneva	152
Lucerne	114
Lausanne	155
Grenchen (SO)	158
Chur	131

Source: *Schweizerische Schulstatistik, 1975/1976*. Genf. Schw. Dokumentationsstelle fuer Schul- und Bildungsfragen, 1977. P. 40.

Candidates for admission generally must have completed a vocational training program and must possess a certificate of proficiency. In exceptional cases a candidate may present the required general education and evidence of successful practical experience in the pertinent subject area. Holders of the academic secondary school certificate of maturity are

examined in general education only and must complete at least 1½ years of experience in the field they wish to pursue before being admitted to the technical institute.

Courses require 6 semesters of full-time study or the equivalent in part-time study. Programs are offered in 16 fields (not all in every institution): (1) Architectural engineering, (2) urban planning, (3) landscape architecture, (4) civil engineering, (5) surveying, (6) mechanical engineering, (7) automobile engineering, (8) micro-engineering, (9) chemistry, (10) chemical engineering, (11) plastics engineering, (12) electrical engineering, (13) nuclear engineering, (14) medical engineering, and (15) printing engineering.

After completing 6 semesters, students must present a 3-week written assignment and take both oral and written examinations. The typical degree awarded is engineer-technician followed by the designation of the school (*Ingenieur-Techniker HTL; d'ingénieur-technicien ETS; ingegnere-tecnico STS*).

Technicians Schools.—Increased complexity of industrial technology has created a need for highly trained technicians at a level between that of the vocational school graduate and the graduate engineer-technician. In recent years special institutions (*Technikerschulen*) have been developed within the framework of inservice education. In 1975 there were 20 such schools with varying lengths and levels of training. The draft vocational education law of 1977 includes a section designed to standardize these schools and define requirements for them. Graduates of these schools will be authorized to use the title technician, technicians school (*Techniker TS*).

Enrollment in technical fields at the higher education level (not including the two university-level institutes of technology) in 1976-77 was 8,046 (table 1).

Higher schools of economics and administration.—In recent years six higher schools of economics and administration (*Hoehere Wirtschafts- und Verwaltungsschulen*) have been established to provide advanced training for graduates of commercial apprenticeships with part-time schooling or holders of diplomas or maturity certificates of commercial schools who in addition have extensive successful experience in business or public administration. These schools enable their graduates to qualify for advanced positions in business or administration. The program consists of a 1-year preliminary course followed by a 2-year main course. In the last 2 semesters some specialization is possible (e.g., accounting, marketing, or administration).

Other specialized schools.—In addition to the schools described above, there are various specialized schools (*Fachschulen*) under cantonal, municipal, or private administration that provide training in narrow fields. These include hotel schools, schools for druggists, textile schools, schools for building trades, schools for librarians, and schools for cheesemaking, gardening, forestry, fruit, and winegrowing.

In many trades advanced inservice training programs terminate with examinations. Some of the training for these examinations is carried on in vocational and technical schools and some in training centers maintained by trade or industrial associations.

Schools that are not included under the law controlling vocational education, such as schools of social work or schools for paramedical professions, are administered by cantonal authorities and in some cases by the Swiss Red Cross.

Swiss Institute for Vocational Education

The Swiss Institute for Vocational Education (*Schweizerisches Institut fuer Berufspaedagogik*), established May 17, 1972, represents an important forward step both in training vocational teachers (to be discussed in a following section) and in developing teaching materials. The institute maintains a documentation center on vocational education, evaluates teaching aids and materials, and promotes research. In 1975 the documentation center distributed 10 shipments of teaching materials. Courses for all general education subjects accompanying vocational education have been revised, and courses for vocational subjects in various fields are in the process of being revised.

SPECIAL EDUCATION

The need for special education for physically and mentally handicapped children has long been recognized in Switzerland. Special classes or special schools are available during the compulsory school period in all Cantons. Generally pupils who cannot progress through the primary school at the normal pace are grouped in small classes within the school. For those with extreme handicaps, special schools are maintained such as those for the mentally retarded, the blind, and the deaf and dumb. Wherever possible, maladjusted but normally intelligent children attend regular schools where there are special programs and guidance for them.

Some special schools are public institutions maintained by the Cantons or large cities, while others are

private and are frequently maintained by religious organizations. Private schools receive financial assistance from cantonal and local authorities and to some extent from the Federal Government. About 75 public institutions and numerous small private ones provide boarding facilities. Enrollments in special classes and special schools at the primary and lower secondary level in 1976-77 totaled 40,155. Federal statistics do not distinguish between the two levels and include both under the primary (the larger) group (table 1).

PRIVATE SCHOOLS

Private schools exist in substantial numbers and are authorized in all Cantons. They can be classified in four groups:

1. Schools that parallel or replace the public elementary and secondary schools and offer essentially the same programs. These are found most frequently in Cantons with a Roman Catholic majority. Since these schools generally receive financial support from the Cantons, they may be considered to have quasi-official status.

2. Schools that enroll primarily foreign students and enable them to obtain the diplomas or leaving certificates of their own countries (e.g., the American school at Leysin offers American-type high school certificates and has recently expanded to the bachelor's degree level on the American pattern). This group also includes schools that specialize in commercial and foreign language training. A large number of these are members of a central association of private schools (*Zentralverband Schweizerische Erziehungsinstitute und Privatschulen*).

3. Vocational schools conducted and financed by trade associations or by industries. These maintain close relationships with the corresponding public institutions and are subject to the Federal and cantonal regulations for vocational education.

4. Swiss schools in foreign countries. These receive substantial Federal subsidies. In addition, each school usually has a "patron" Canton in Switzerland that supplies it with materials and frequently furloughs some of its own teachers to work in the school.

Since the language of instruction in the schools of Bern, the capital city, is German, a private school, "*Ecole de langue française*" has been established to provide instruction in the French language for children of Federal employees from the French-speaking Cantons and children of foreign diplomats who prefer French to German as the language of instruction. The school is subsidized both by the Federal Government and the Canton of Bern.

The private schools that include the compulsory period and enroll Swiss children follow the course of study and use the teaching materials of the Canton in which they are located. Others have complete freedom in establishing their curriculum.

Approximately 9 percent of all students below the university level (preschool through non-university higher education) are enrolled in private schools, two-thirds of them in schools that receive some public funds. The highest percentages occur at the upper secondary level (24 percent) and the non-university higher education level (43 percent).

AUXILIARY SCHOOL SERVICES

Guidance Services

The Vocational Education Act of 1963 devoted an entire chapter to guidance and established principles that have been retained in subsequent acts. Guidance services are the responsibility of the Cantons, each of which maintains a central guidance agency staffed with trained personnel. The Federal Government promotes guidance services by providing financial support.

Guidance services are organized at the community, regional, and cantonal level. In 18 Cantons these services are administered by the Department of Education, in 6 by the Department of Commerce, and in 1 by the Department of Interior. The Swiss Association for Vocational Guidance, (*Schweizerischer Verband fuer Berufsberatung*), established in 1902, cooperates with all agencies concerned with guidance—in schools, industries, Government departments, private associations, and institutes. It promotes and conducts preservice and in-service training for guidance personnel and serves as an information center for all aspects of guidance services.

In German-speaking Switzerland full-time guidance personnel are trained primarily by the Institute for Applied Psychology in Zurich and by the Swiss Association for Vocational Guidance. The association, in cooperation with cantonal education departments, also provides a 2-year part-time training program for teachers who participate in guidance services in the schools. In French-speaking Switzerland, guidance personnel are trained at the universities.

Guidance in the schools generally begins in the last year of compulsory education, but the trend is to start it earlier. The service is provided by teachers who have had the special training described above or by full-time counselors.

Academic and professional guidance at the university level is organized centrally in almost all Cantons. An intercantonal organization serving several Cantons has been established in Lucerne (*Zentralschweizerische Beratungsstelle*).

Medical, Psychological, and Social Services

Medical, psychological, and social services are the responsibility of the Cantons, in some cases of the cities, with financial support from the Federal level. The most important services include: Health education programs required by the Federal Anti-Tuberculosis Law, periodic physical examinations of pupils and teachers, school dental services, supervision of sanitary facilities in the schools, examination of children to determine school readiness (as required), and services for handicapped children.

These services are frequently centered in large cities and serve rural areas with mobile teams.

TEACHER EDUCATION

Except in the vocational field, teacher education is the responsibility of the Cantons, which issue regulations, courses of study, and examination requirements and provide certification (certificates of maturity in some cases). Programs are offered at the secondary level, higher education level, or both, depending on the education level at which the teacher will be employed.

In 1976-77 the total enrollment in teacher education was 15,923 at the secondary level and 3,720 at the non-university higher education level (table 1). Figures on enrollments of prospective teachers at the universities are not available.

Kindergarten Teachers

In German-speaking Cantons, kindergarten teachers are usually trained in special institutes (*Kindergaertnerinnenseminarien*) at the upper secondary level (extending in some cases into the postsecondary level). These institutes may be cantonal, municipal, or private. Candidates for admission must be 17 or 18 years old with 10 years (9 in some cases) of general education. This education usually has been obtained by attendance in the compulsory schools and then in the general secondary schools. Entrance examinations include singing, drawing, handicrafts, and gymnastics. Training courses last 2 or 3 years and emphasize child psychology, sociology, music, and handicrafts.

In most French-speaking Cantons and in Italian-speaking Ticino, training courses generally are offered in the same schools that train primary teachers. These courses frequently have a distinctive name—*ecole normale pour maitresses enfantines*. Candidates enter these courses upon completing compulsory education. Courses last 3 or 4 years and are similar in emphasis to those in German-speaking areas. One Canton, Geneva, requires kindergarten teachers to have received a secondary school certificate of maturity and to have completed a 3-year training course at the university.

In 1976-77 the total enrollment in training courses for kindergarten teachers was 1,992 (table 1).

Primary School Teachers

In most Cantons, primary school teachers are trained in 4- or 5-year institutes (*Lehrerseminarien*), which they enter after completing compulsory education. The 4-year institutes usually offer general education and pedagogical training concurrently. Graduates receive a diploma (*Lehrer Patent*), and in addition, in some Cantons, a cantonal certificate of maturity that admits them to some university faculties.

Two Cantons, Geneva and Basel-City, require prospective primary school teachers to acquire the secondary school certificate of maturity and enter the university for training courses of 2 years' duration at Basel and of 3 years' at Geneva. The courses emphasize pedagogical training and teaching practice, since students have completed their general education before entry.

Five-year programs are usually divided into two parts, with the lower (*Unterseminar*) offering general education at the secondary level, and the upper (*Oberseminar*) offering pedagogical training at the postsecondary level. Holders of certificates of maturity from academic secondary schools are also qualified for admission to the upper level.

Lower Secondary School Teachers

Teachers for lower secondary schools (*Oberschulen, Realschulen, Sekundarschulen*) usually enter teacher-training programs upon receiving a secondary school certificate of maturity or the primary school teachers certificate. Three-year training programs for lower secondary teachers are offered by departments of education at universities, or in a few cases (in Basel, St. Gallen, and Aargau) in higher teacher-training institutes independent of the universities. Courses include psychology, pedagogy, and practical training. Teachers are trained in subject groups, either language-history or mathematics-science. Upon completing the course they receive a

diploma (*Sekundarlehrerpatent*) that specifies the subject group they are authorized to teach.

Upper Secondary School Teachers

Teachers for the upper secondary school (*Gymnasium, gymnase, collège, liceo*) must be university graduates. Subject-matter study in two or three fields is completed at the university, usually in 8 semesters. Following this, psychological and pedagogical training is provided in 1- or 2-year seminars organized in some cases by universities and in others by cantonal authorities. These seminars lead to teacher certification. In French-speaking Cantons, graduates are assigned to lower secondary schools for some experience before obtaining permanent assignments at the upper level.

Vocational/Technical School Teachers

Requirements for training vocational teachers are included in Federal regulations for vocational education, but administration of the schools is the responsibility of the individual Cantons. Teachers for trade and industrial schools constitute two groups: Teachers of general subjects and teachers of vocational subjects. The former are drawn from elementary or secondary teachers with successful teaching experience or qualified holders of maturity certificates who complete a 4-semester course conducted by the Swiss Institute for Vocational Education, emphasizing the native language, political and economic studies, general business, accounting, and pedagogical studies, including practice teaching.

Teachers of vocational subjects at the secondary level that are also offered at an advanced level at the higher technical institutes (*HTL, ETS*) must complete the pertinent course at a higher technical institute and have practical experience in order to teach in the vocational schools. In subjects not offered by the higher technical institutes, candidates must have a certificate of completion from a technicians school or have passed the advanced vocational examination that is required for the master's diploma. In addition they must have completed a 2-semester course in psychology, pedagogy, and practice teaching conducted by the Swiss Institute for Vocational Education.

The majority of teachers in part-time and full-time commercial schools (*Kaufmaennische Berufsschulen, Handelsdiplomschulen*) are university graduates. Language teachers in these schools may be university graduates, graduates of language schools, or "practitioners." Teachers of typing and stenography are supplied by professional associations in these subject areas.

Teachers of Special Subjects

Training courses of different lengths are offered by a variety of institutions for teachers of music, drawing, and gymnastics. Teachers of these subjects normally hold general elementary or secondary certificates and teach one or more subjects in addition to their specialty.

Teachers of home economics and handicrafts are trained in specialized institutes (*Hauswirtschaftslehrerinnenseminare, instituts ménagères, docenti economica domestica*). Courses usually last 2 to 4 years and follow a completed general or vocational education program.

Teachers for the Handicapped

Teachers for special classes or special schools for the handicapped (*Sonderschulen, classes spéciales*) usually hold general teaching certificates and have had successful teaching experience with normal children. Specific training for special education is offered in university institutes (in Basel, Geneva, and Fribourg) or in a comparable private institute in Zurich. Because of a shortage of trained special education teachers, some Cantons organize special courses for primary school teachers who must be assigned to special classes.

University Professors

University professors are selected from candidates who have completed outstanding doctoral dissertations and have continued their research activities. Prospective professors generally begin as assistants at the university and proceed through intermediate ranks as research assistants and lecturers. To attain the highest rank (ordinary professor), a candidate must perform significant research, write a second dissertation, and present demonstration lectures before his colleagues.

Inservice Training

Inservice training was initiated in the past primarily by teachers' organizations to improve the quality of the profession and to assist teachers in keeping abreast of the times. In recent years, as school reforms and reorganization increased, school authorities recognized the need for inservice training and established it on a legal basis in many Cantons. Cantonal and regional institutes were established to develop and offer the necessary courses.

For teachers at the compulsory school level both mandatory and elective inservice courses have been developed. The former are frequently offered during the school day, the latter during vacation periods, frequently in 2- or 3-week sessions. Participants generally receive compensation to cover their expenses.

Teachers' organizations beyond the compulsory school level have also been active in inservice programs. The academic secondary school teachers' association (*Verein schweizerischer Gymnasiallehrer*) with 18 affiliated subject-matter associations, has been particularly active and has conducted a major study conference every 4 years. At the request of this association, the Swiss Conference of Cantonal Directors of Education organized the Swiss Center for the Inservice Education of Secondary School Teachers (*Schweizerische Zentralstelle fuer die Weiterbildung der Mittelschullehrer, WBZ*) which assumed its activities in 1968 and has taken leadership in inservice training at this level. Programs are conducted annually, with expenses being shared by the Federal Government and by the Cantons, which provide additional funds to reimburse participants at least partially for their expenses.

The inservice training of vocational teachers has been in operation for many years and is now the responsibility of the Swiss Institute for Vocational Education, augmented by inservice activities of the trade associations.

In recent years teachers and teachers' organizations have taken an increasingly active part in school reorganization, curriculum study and revisions, and school reform deliberations. The conference of teachers' associations (*Konferenz der Schweizerischen Lehrerorganisationen, KOSLO*) and its member associations work closely with the educational authorities at all levels so that teachers are exerting an increasing influence on all aspects of school affairs.

UNIVERSITIES AND EQUIVALENT ORGANIZATIONS

The university level consists of two Federal institutes of technology, seven cantonal general universities, the School of Economics, Business and Public Administration at St. Gallen, and a theological faculty at Lucerne. A general university is in the advanced planning stage at Lucerne and will absorb the faculty of theology. Table 8 presents a list of the 11 institutions with the dates of founding and number of students enrolled in the winter semester of 1976-77.

Organization and Control

The Federal Institutes of Technology.—The Federal Institute of Technology (*Eidgenoessische Technische Hochschule, ETH*) at Zurich, founded in 1855, was the first Federal educational institution in Switzerland. Its French-speaking counterpart, *Ecole Polytechnique Féderale de Lausanne* (EPFL), was founded as a private technical school in 1853. In 1869 it was incorporated into the Academy of Lausanne, which became the University of Lausanne in 1890. In 1969 it was transferred from the university to Federal control as the Federal Institute of Technology at Lausanne. Both institutions offer the following courses: Civil engineering; agricultural engineering and surveying; mechanical engineering; electrical engineering; physics, chemistry, mathematics; materials (metallurgy, concrete, etc.), and architecture.

Table 8.—Universities and equivalent institutions with date founded and enrollments: Winter semester, 1976–77

Institution	Date founded	Enrollment
Total		*54,198*
University of Basel	1460	5471
University of Bern	1834	6863
University of Fribourg	1889	3969
University of Geneva	1559	7849
University of Lausanne	1890	4631
University of Neuchatel	1909	1753
University of Zurich	1833	12791
Federal Institute of Technology, Zurich	1855	7156
Federal Institute of Technology, Lausanne	1969	1857
School of Economics, Business, and Public Administration, St. Gallen	1899	1696
Theological Faculty, Lucerne[1]	1970	162

[1]In existence since the 17th Century, the Faculty was granted the right to award degrees in 1970.

Sources: Dates of founding—Eugene Egger and Emile Blanc. *Education in Switzerland.* Geneva: Swiss Educational Documentation Center, 1974. p. 23. Enrollments—Eidgenoessisches Statistisches Amt. *Studentenstatistik, Wintersemester 1976/77.* Bern, 1977. p. 9.

The Institute of Technology at Zurich, in addition to the above, offers biological sciences, forestry, military science, pharmacy, and physical education. The Federal Institute for Reactor Research and the Swiss Institute for Nuclear Research are both affiliated with it.

The general universities.—The seven general universities are controlled by the Cantons in which

they are located. Three (Basel, Bern, and Zurich) are located in German-speaking Cantons and use German as the language of instruction. The other four (Geneva, Lausanne, Neuchatel, and Fribourg) are in French-speaking Cantons and use French as the language of instruction. Fribourg also uses German extensively.

The universities are divided into six faculties: Theology, law, economics and social science, medicine, arts (German: *Philosophie* I; French: *lettres*), and sciences (German: *Philosophie* II; French: *sciences*). A major task of the arts and sciences faculties is the subject-matter training of prospective secondary school teachers. All seven universities offer some courses in all faculties, but since the universities vary widely in size, they also differ substantially in the number and scope of courses they can offer.

In addition to the faculties, some universities maintain programs or institutes not assigned to a particular faculty; e.g., a school to train gymnastics teachers (Basel, Bern, Geneva, Neuchatel); a school of psychology and educational science (Geneva); and a school for interpreters (Geneva).

The St. Gallen School of Economics, Business, and Public Administration (*Hochschule fuer Wirtschafts- und Sozialwissenschaften*). — The St. Gallen School is maintained jointly by the Canton and the city of St. Gallen. The language of instruction is German. Major departments are in business administration, economics, jurisprudence, technology and natural sciences, and cultural sciences. Specialized work is carried on in a number of attached institutes: Swiss Institute for International Economics, Regional Studies and Market Research; Swiss Institute of Public Administration; Swiss Research Institute of Small Business; Institute of Insurance Economics; Institute of Business Management; Latin American Institute; Institute for Tourism and Transport Economy; Institute of Public Finance and Fiscal Law; Institute for Marketing and Distribution; and Institute of Banking.

The Central Swiss University of Lucerne. — Because of sharply increasing university enrollments, plans for expanding the university system have been in progress for several years. The two most advanced plans were to found new institutions at Aargau and Lucerne. Because of financial problems, plans for the institution at Aargau were suspended in 1977. Plans for a university at Lucerne, however, are proceeding on schedule. The faculty of theology already in existence will become part of the new university.

Although the university will be administered by the Canton of Lucerne, it will be supported by other Cantons through an interuniversity concordat, including the Cantons of Lucerne, Uri, Schwyz, Obwalden, Nidwalden, and Zug. Additional Cantons can participate in the support of the new university by adopting the concordat. Because of its intercantonal nature, the new university will be named officially the Central Swiss University of Lucerne (*Zentralschweizer Universitaet Luzern*).

Major fields of study will be arts and sciences; psychology and education; law, economics, and political science; and theology (the existing faculty of theology). Each department will accept students as soon as facilities and staff are available. It is anticipated that all departments will be in operation not later than the 1982 academic year.

Administration and Finance

Universities are essentially self-governing bodies, two at the Federal level, the others at the cantonal level. Broadly speaking, general administrative and fiscal matters are supervised by Federal or cantonal authorities, while academic administration is conducted by the universities themselves.

General supervision of each university is exercised by a university council (*Universitaetsrat*) consisting of representatives of the cantonal (or Federal) authorities, the chief cantonal education officer ex officio, representatives of scientific, business, and public affairs interests, and members of the university itself (the rector ex officio, representatives of the academic staff, and of the student body).

The legislative body within the university is the senate (*Senat*), chaired by the rector and representing all parts of the university. The rector and his assistants constitute the executive staff. The rector, nominated by the senate and elected by the university council, fulfills his responsibilities on a full-time basis. His chief assistant is an administrative secretary, responsible for general management and fiscal matters. A senate committee consisting of the rector and six to eight representatives of the senate conducts day-to-day operations between meetings of the senate as a whole.

Under the highly decentralized pattern of Swiss education, universities traditionally were financed by the Cantons in which they are located. Thus a small number of Cantons provided higher education for the country as a whole. Consequently, the need for a more equitable distribution of the costs of higher education became a major issue leading to increased Federal participation in education. Current Federal

participation in higher education was established by the Federal Law for the Promotion of Higher Education of June 28, 1968 (*Bundesgesetz ueber die Hochschulfoerderung*). In 1974-75, 67 percent of the costs of university education and research for the country as a whole were provided by the Federal Government.

In 1965 the Federal Council had established a scientific council (*Wissenschaftsrat*) to serve as an advisory body for higher education and research. Following a 1971 revision of the 1968 law concerning Federal participation, the Government formed the Swiss University Council (*Schweizerische Hochschulkonferenz*) to improve coordination among the universities, the Federal Government, and the Cantons.

University Admission

All holders of federally recognized Swiss maturity certificates types A to E are eligible for unrestricted admission to any university faculty. Applicants with foreign credentials are accepted on the basis of comparability with Swiss requirements. Admission to medical faculties is limited to holders of the Swiss maturity certificate. Cantonal certificates of maturity provide admission to some faculties. Graduates of higher technical institutes with good records are admitted to the Federal institutes of technology.

An unusually large number of Swiss university students, 19 percent, are foreigners. This fact, coupled with the increasing demand for higher education by Swiss secondary school graduates, has resulted in a sharp increase in university enrollments, from 35,972 in 1967-68 to 54,198 in 1976-77, an increase of 51 percent in 9 years. Consequently there has been active discussion in recent years on the advisability of establishing a *numerous clausus*, that is, restricted enrollments in overcrowded fields. The only specific step taken in this direction is the restriction of medical education to holders of the Swiss maturity certificate.

Programs of Studies and Degrees

Programs of studies and degrees are offered at two levels. The first requires 3 or 4 years of study and leads to a diploma (*Diplom*) in German-language universities and a licentiate (*license*) in French-language universities. The diploma frequently specifies the subject in which it is awarded. Course requirements vary among universities. Some universities do not grant a first-level degree, but grant only a second-level degree upon completion of a program of studies including both levels. Second-level studies usually require 2 to 4 years of study beyond the first. The typical degree is the doctorate (*Doktor, Docteur*) in the specific field of study (e.g., *Dr. med.*, M.D.). Table 9 presents the total number of degrees issued by the 11 universities in 1975.

Table 9.—Number of diplomas and doctorates awarded by universities and equivalent institutions, by major fields: 1975

Institution	Total	Diplomas	Doctorates
Total	*6,636*	*4,972*	*1,684*
Federal Institutes of Technology	1,121	869	252
Universities and the two other equivalent institutions	5,535	4,103	1,432
Arts	873	663	210
Economics and social sciences	1,060	920	140
Law	582	455	127
Medicine	1,683	1,043	640
Sciences	974	691	283
Theology	101	82	19
Other	262	249	13

Source: Eidgenoessisches Statistisches Amt. *Statistik des Hochschulwesens in der Schweiz, 1975/76*. Bern, 1977. P. 62.

In addition to first-degree examinations given by the universities, comparable examinations, known as extra-university examinations, are given by cantonal authorities for lawyers, notaries, and especially for secondary school teachers who complete their pedagogical training in cantonal seminars after leaving the university. Some examinations are also given by church authorities in theological fields. In 1975, a total of 852 extra-university examinations were given.

OTHER HIGHER EDUCATION INSTITUTIONS

Chart 1 presents three groups of institutions at the higher education level: (1) Universities and institutes of technology, (2) teacher-training institutes, and (3) higher technical training schools and other specialized institutions. The first two groups have already been discussed, and many of the institutions in the third group were described in the section on vocational and technical education. Among the schools in this third group, however, are some that have not yet been discussed—colleges of art and music and a few other institutions that do not fit into any general category.

Colleges of art and music are generally classified at the higher education level, but because of their specialized nature are not included in the university group and do not appear in university statistics. The usual entrance requirement is the secondary school certificate of maturity or demonstrated proficiency at a high level in the desired field of study. Graduates receive a diploma that qualifies them for professional positions in the field. A number of schools also offer graduate studies to the doctoral level. Table 10 presents a list of these schools.

Table 10.—Schools of art and music with date founded and enrollments (when available): 1975

Institution	Date founded	Enrollment
Total (partial)		*10,681*
School of Art of Geneva:	. . .	
School of Fine Arts	1748	. . .
School of Decorative Arts	1876	. . .
Cantonal School of Fine Arts and Applied Art, Lausanne	1821	120
Academy of Music, Geneva	1886	. . .
Conservatory and Academy of Music, Fribourg	. . .	. . .
Conservatory of Music, Geneva	1835	300
Conservatory of Music, Lausanne	1861	1,300
Conservatory of Music, Neuchatel	. . .	. . .
Conservatory of Music in Bern	1858	. . .
Conservatory and College of Music, Zurich	1876	3,000
Music Academy of the City of Basel	1867	2,891
School of Music and Conservatory, Winterthur	1873	2,300
Music Academy, Zurich	1891	770

Source: *The World of Learning, 1976-77*. London: Europa Publications Limited, 1976. 27th ed. Vol. 2, p. 1164.

Other specialized schools include the following:

The Management Development Institute (*Institute pour l'Etude des Methodes de Direction l'Enterprise*), founded in Lausanne in 1957, which offers a 1-year course leading to a master's degree in business administration (M.B.A.), a 19-week course for middle managers, 3-week seminars for senior executives, and a variety of short-term general management courses.

The Swiss Institute for International Studies (*Schweizerisches Institut fuer Auslandsforschung*), founded in Zurich in 1943, which conducts research on international affairs.

The Textile and Fashion School (*Textil- und Modeschule*), founded in St. Gallen in 1878, which offers courses in textile design, lace and embroidery, fashion design, and general training for the textile industry.

The C.G. Jung Institute (*C.G. Jung-Institute*), founded in Zurich in 1948. This research and teaching institute for analytical psychology as conceived and developed by Jung provides clinical and professional programs leading to a diploma and courses and seminars in German and English. It also maintains an international picture archive and gallery.

ADULT EDUCATION

The Swiss Federation for Adult Education (*Schweizerische Vereinigung fuer Erwachsenenbildung; Fédération suisse pour l'éducation des adults, FSEA*) celebrated its 25th anniversary in 1976. It has 28 member organizations, most of them private, representing a variety of interests and programs. The first organization to join the federation was the Association of Swiss Popular Universities (*Volkshochschulen*), institutions concerned more with cultural than with vocational objectives. Other more recent members—e.g., the Center for Continuing Vocational Education (*Zentralstelle fuer berufliche Weiterbildung*)—emphasize increased vocational proficiency. Still others are concerned with civic education, parent education, library services, or language training.

Federal regulations on secondary school leaving certificates issued in 1968 (see p. 13) recognized the equivalency of certificates issued by evening schools to those issued by the standard academic secondary schools, thereby providing the opportunity for persons who had interrupted their formal education to resume it on a part-time basis. Establishment of evening higher technical institutes comparable to the corresponding full-time institutes provided new opportunities for people in technical fields to continue their training to the highest nonuniversity level.

In recent years the concept of recurrent education, promoted by the United Nations Educational, Cultural, and Scientific Organization (UNESCO) and by the Organization for Economic Cooperation and Development (OECD), has been widely discussed in Switzerland, a member of both organizations. Recurrent education is defined by OECD as "a comprehensive educational strategy for all post compulsory or post-basic education, the essential characteristic of which is the distribution of education over the total lifespan of the individual in a recurring way; i.e., in alternation with other activities, principally with work but also with leisure and retirement." It attempts to remove artificial distinctions between full-time and part-time education and between education at the adolescent and at the adult level.

The Federal Government has no authority for general education. In 1973 the following constitutional amendment was proposed and rejected:

> The Federal Government may lay down principles on the organization and development of education for adults and out-of-school education for adolescents.

Recurrent education, therefore, aside from vocational training, remains strictly a cantonal function. Several Cantons have taken legislative action to define their responsibilities in this field. Most of the activity in recurrent education continues to be carried on by private groups with substantial aid from the Cantons and communities. A comprehensive report on developments in recurrent education in Switzerland has recently been published by OECD. (See Selected Reading List.)

In addition to the evening secondary schools and higher technical institutes, numerous private schools provide training in many fields (e.g., business training, foreign language study), either through evening or correspondence courses, and—in at least one school—through television.

Municipal and cantonal libraries and the National Library provide valuable resources for individual or group recurrent education activities. All libraries lend available materials to anyone who requests them.

EDUCATIONAL RESEARCH

Research in education is conducted primarily at the cantonal or intercantonal level with substantial financial help from the Federal Government. At the cantonal level, most of the research is performed by the universities, by specialized institutes such as pedagogical centers, or by special committees. Important agencies at the intercantonal level are the Swiss Conference of Cantonal Directors of Education and its specialized committees, and the Swiss Higher Education Conference (*Schweizerische Hochschulkonferenz*).

The Federal Government provides support within the framework of university support legislation and research support legislation. It also conducts research through its own agencies. These include the Federal institutes of technology, the Swiss Science Council (*Schweizerischer Wissenschaftsrat*), the Office for Science and Research of the Federal Department of the Interior (*Amt fuer Wissenschaft und Forschung des Eidgenoessischen Departements des Innern*), and the Swiss National Science Foundation (*Schweizerischer Nationalfonds zur Foerderung der wissenschaftlichen Forschung*). The latter organization has received substantial Federal funds to promote the development of future scientists.

In 1971 the Federal Department of the Interior and the Swiss Conference of Cantonal Directors of Education jointly founded the Swiss Coordination Center for Research in Education (*Schweizerische Koordinationsstelle fuer Bildungsforschung*) to promote exchange of information and cooperation among agencies and individuals concerned with educational research, educational practice, and educational administration.

Switzerland is a member of four international organizations concerned with educational research: The International Bureau of Education (IBE), located in Geneva, now a part of UNESCO; The Council for Cultural Cooperation of the Council of Europe; The European Documentation and Information System for Education (EUDISED), similar in purpose to the Educational Resources Information Center (ERIC) in the United States; and two units of the Organization for Economic Cooperation and Development (OECD) concerned with education—the Education Committee and the Center for Educational Research and Innovation (CERI).

THE SCHOOL SYSTEM OF ZURICH

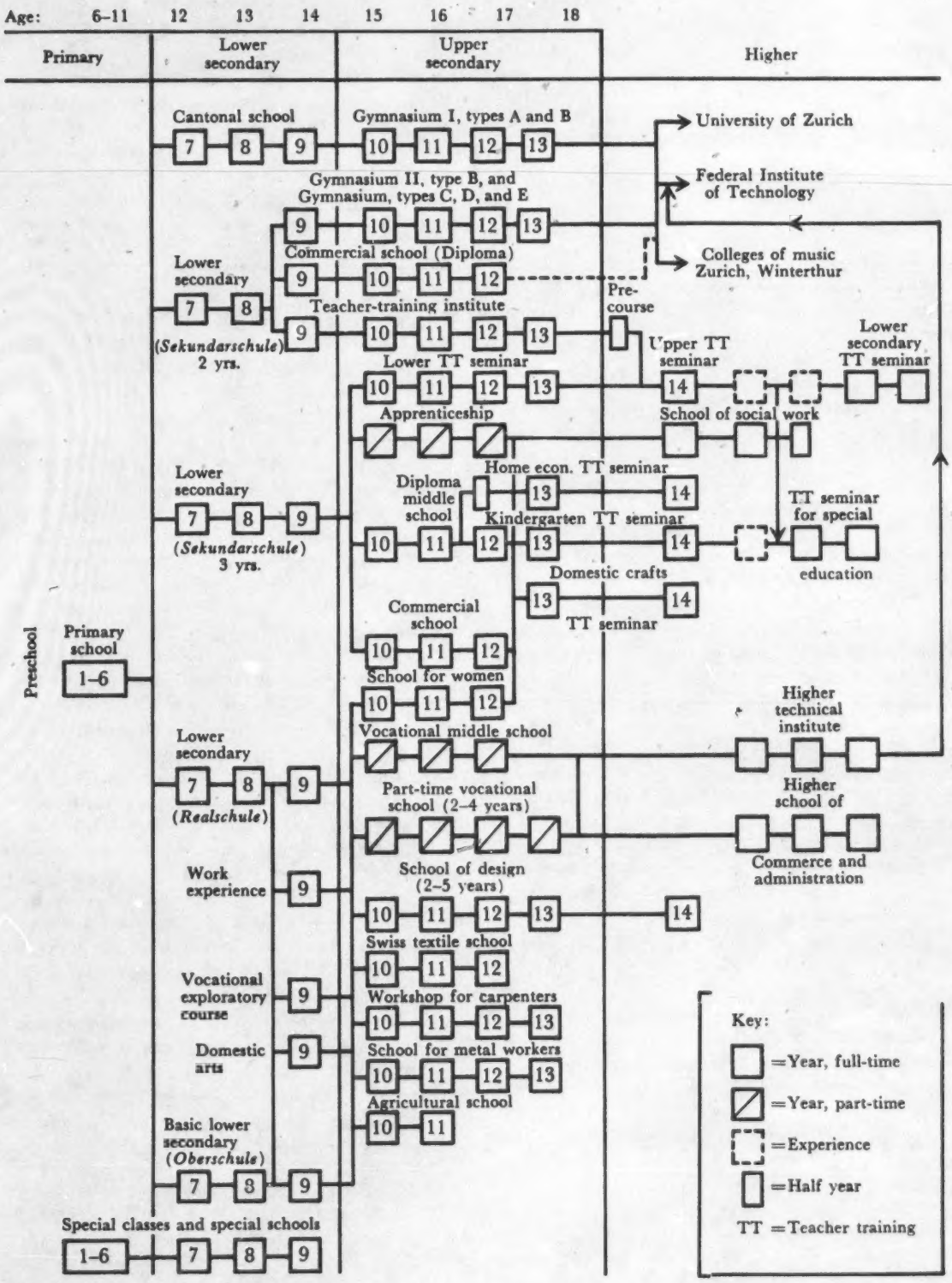
Because of the high degree of decentralization and local variations in both political and educational matters, the discussion of education in the preceding sections of this report necessarily has been presented in summary fashion. A more specific picture of Swiss education in operation can best be given through a more detailed look at a single Canton that includes a great variety of educational institutions and practices in its system. The Canton of Zurich, the most populous, presents in its educational system examples of almost all types of Swiss schools, including the largest general university and the larger of the two Federal institutes of technology. Chart 2 presents the structure of education in Zurich.

The school year in Zurich begins in the spring. Compulsory education begins for children who have reached their 6th birthday on or before the beginning of the school year and lasts for 9 years.

Elementary Education

Both municipal and private kindergartens and other preschool programs are available on a voluntary basis for children aged 3 to 6. Public kindergartens are supported by the communities but may receive some financial aid from the Canton. Private

Chart 2.—Structure of education in the Canton of Zurich



kindergartens generally are self-supporting but may receive some support from public funds.

All children enter the 6-year primary school (*Primarschule*), after which they all proceed to the lower secondary level to complete their compulsory education and, if they wish, to pursue more advanced objectives.

Lower Secondary Schools

The Canton of Zurich offers more options at the lower secondary level than any other Canton. All three common types of lower secondary schools (*Oberschule, Realschule, Sekundarschule*) are represented, the third in both a 2-year and a 3-year form. In addition, the cantonal schools (*Kantonschulen*) offer the first 3 years (grades 7 to 9) of the 13-year *gymnasium* in type A (Latin-Greek emphasis) and type B (Latin-modern language emphasis).

The *Oberschule* represents the former upper level of the primary school and offers the curriculum of least difficulty at the lower secondary level. The 3-year course enables pupils to complete the compulsory education requirement and to enter part-time vocational schools combined with apprenticeship.

The *Realschule* does not differ substantially from the *Oberschule* but offers French as a second language, somewhat more emphasis on mathematics and science, and some industrial or domestic arts. Graduates generally continue their education in part-time or full-time vocational schools. Pupils of both the *Oberschule* and the *Realschule* have several options in the 9th grade: work experience (*Werkjahr*), vocational exploratory courses (*Berufswahlklassen*), or domestic arts (*Hauswirtschaftliches Jahreskurs*).

The 2-year *Sekundarschule* provides the prerequisite for a number of upper secondary schools that begin with the 9th rather than the 10th grade; e.g., *Gymnasium II* (starting with grade 9 rather than 10), type B; *Gymnasium* type C (mathematics-science emphasis), type D (modern language emphasis), and type E (economics and sociology emphasis); commercial schools; and the teacher-training schools (*Lehramtsschulen*) in the cities of Wetzikon and Winterthur.

The 3-year *Sekundarschule* leads to a number of upper secondary schools that begin with the 10th grade: The teacher-training school (*Unterseminar*) in the city of Zurich, commercial schools, and diploma middle schools (*Diplommittelschulen*), some of which lead to more advanced specialized schools. Both types of *Sekundarschulen* require entrance examinations.

The most advanced schools at the lower secondary level are the cantonal schools, leading to *Gymnasium I* at the upper secondary level (grades 10 to 13), including type A (Latin-Greek emphasis) and type B (Latin-modern language emphasis).

Parallel to the primary school and the lower secondary level through grade 8, special courses and special schools are provided for the handicapped.

Upper Secondary Schools

The upper secondary level consists of academic and general secondary schools, teacher training, and vocational/technical education.

Part-time vocational schools include commercial, trade, and industrial schools (*kaufmaennische, gewerbliche, und industrielle Berufsschulen*), offering 2-, 3-, or 4-year courses with apprenticeships. Most students enter these from the *Oberschule* or *Realschule*, but some students from the 3-year *Sekundarschule* also enter apprenticeships (*Lehre*). The vocational middle school (*Berufsmittelschule*) in Zurich completes this category.

Full-time vocational schools include an agricultural school, grades 10 and 11 (*Landwirtschaftliche Schule Lindau*); a school for metal workers, grades 10 to 13 (*Metalarbeiterschule Winterthur*); workshops for furniture and cabinet makers, grades 10 to 13 (*Lehrwerkstaetten fuer Moebelschreiner*); several schools of art and design, varying in length from 2 to 5 years (*Kunstgewerbeschulen*); and 3-year commercial schools (*Handelsschulen*) in Wetzikon and Winterthur.

Two schools for women (*Schweizerische Frauenfachschule Zurich* and *Berufs- und Frauenfachschule Winterthur*), grades 10 to 12, offer a combination of general and vocational education that does not lead to higher education but to some teacher-training programs.

General upper secondary education is offered by the five types of *Gymnasia*, all of which lead to unlimited university admission. The city of Zurich also has an evening *Gymnasium*. The 4-year diploma business school (*Handelsschule, Diplom*) in Zurich is generally classified with general rather than with vocational education.

Teacher education for elementary school teachers is represented by two teacher-training schools (*Lehramtsschulen*) and a parallel institute (*Unterseminar*). The former offer a terminal program (3½ years). The latter offers a 4-year program followed by an upper division (*Oberseminar*) in the 14th year. Students in the *Lehramtsschulen*, upon completion of their program, can take a half-year pre-course and

then enter the *Oberseminar* in Zurich. The 14th year is properly classified as higher rather than secondary education.

Higher Education

All three categories of postsecondary education shown on chart 1 are represented in the Zurich system: higher technical education, teacher education, and university education.

Higher technical education is offered by the engineering school in Winterthur (*Technikum Winterthur Ingenieurschule—HTL*), a full-time, 6-semester school, and by the evening technical school (*Abendtechnikum*) in Zurich, which offers a parallel course on a part-time basis, extended over a longer period of time.

The advanced school of commerce and administration (*Hoehere Wirtschafts- und Verwaltungsschule*) is in the same general category as the higher technical schools. Students generally enter these schools after having completed a part-time vocational school with apprenticeship and having had practical experience in their fields. Students may also be admitted from other upper secondary schools. Entrance examinations are usually required. The school for social work (*Schule fuer soziale Arbeit*), which offers a 2½-year program beginning with grade 10, can also be classified in this general category.

Teacher education at the higher education level is represented by a variety of schools. The *Oberseminar* (with the 14th year) has already been noted. Graduates of this level teach in the primary schools. After 2 years of experience they may enter a 2-year training institute for teachers in the lower secondary schools (*Real- und Oberschullehrerseminar*)—15th and 16th year of schooling.

Other teacher-training facilities include: A training institute for kindergarten teachers (*Kindergaertnerinnenseminar*), a training institute for teachers of domestic handicrafts (*Arbeitslehrerinnenseminar*), and a training institute for teachers of home economics (*Hauswirtschaftslehrerinnenseminar*). All three of these offer 2-year courses at the grade 13- and 14-level. Students enter from one of the upper secondary schools, frequently from the schools for women in Zurich and Winterthur.

After acquiring at least 1 year of teaching experience, graduates of the *Oberseminar* or the training institute for kindergarten teachers may enter a 2-year training institute (15th and 16th years of schooling) for special education teachers (*Heilpaedagogisches Seminar*).

Teachers for the *Sekundarschule* and all upper level academic secondary schools receive their substantive training at the university or the institute of technology.

The university level is represented by the University of Zurich and the Federal Institute of Technology. In fall 1976 the two institutions enrolled 19,947 students, 37 percent of the total Swiss university enrollments. The Canton also has conservatories and schools of music at Zurich and Winterthur.

Thus the educational system of the Canton of Zurich, multitracked beginning with the 7th grade and extending through the highest levels of academic education and research, presents a comprehensive program, characterized by a wide variety of offerings, both in content and in difficulty, designed to meet the educational needs of children and youth, with ample opportunity to progress to whatever level their inclinations and talents may lead them.

TRENDS

The major trend at the compulsory education level is to increase coordination among the Cantons so that pupils may more easily transfer from the schools of one Canton to those of another. For this purpose, Cantons are working toward a higher degree of standardization among terminology, programs, and examinations. The Concordat on School Coordination was adopted in 1970 to provide leadership in this effort.

Progress has been made toward establishing 9 years of compulsory education (age 9 to 15) in all Cantons. A variation of 6 to 9 years beginning at age 6, 7, or 8 has been narrowed to 8 or 9 years beginning at age 6 or 7.

The need for changes in the educational system is increasingly recognized so that education experimentation is being expanded and closer cooperation among researchers, teachers, and administrators is being promoted. The trend in classrooms is toward more independent study for pupils and more interdisciplinary cooperation, especially at the compulsory school level.

The lower secondary school shows more variation among the Cantons than schools at any other level. Special efforts are being made to achieve greater comparability, with emphasis on mathematics education and instruction in a second national language.

In technical and vocational education, increasing emphasis is being placed on improving general education content.

Increased attention is being directed toward improving inservice and preservice training of teachers for all types of schools.

Opportunities for admission to higher education (both nonuniversity and university) have been expanded by development of evening academic secondary schools and evening higher technical institutes as well as by addition of two new types (D and E) of maturity certificates for the academic secondary schools.

The university level is experiencing a substantial increase in enrollments from year to year. The additional students are being accommodated primarily by expanding existing institutions, but also by establishing a new university at Lucerne. University costs have been distributed more equitably among Cantons by increased Federal participation in university education. At the adult education level the concept of "recurring education" is receiving wider acceptance.

Although Switzerland has 25 distinct (cantonal) educational systems, the need for closer coordination among the Cantons and especially the rising costs of education have greatly stimulated participation by the Federal Government in education at all levels—a trend that is considered likely to continue somewhat further in varying degrees in different sectors.

GLOSSARY OF SELECTED EDUCATIONAL TERMS

German

German	*English*
	A
Abschlussklasse	Terminal class (lower secondary)
Abteilung fuer Landwirtschaft und Forschungsanstalten	Division of Agriculture and Agricultural Research
Allgemeine und landwirtschaftliche Fortbildungsschule	General and agricultural continuation school
Amt fuer Wissenschaft und Forschung des Eidgenoessischen Departements des Innern	Office for Science and Research of the Federal Department of the Interior
	B
Berufliche Ausbildung or Berufsbildung	Vocational education. (In Swiss usage this includes technical education at the upper secondary and non-university tertiary level.)
Berufsmittelschule	Vocational school with augmented curriculum
Berufsschule	Part-time vocational school
Berufswahlklasse	Vocational orientation class
Bezirk	Local school district
Botschaft zu einem neuen Bundesgesetz ueber die Berufsbildung	Report on a New Federal Law for Vocational Education
Bundesamt fuer Industrie, Gewerbe, und Arbeit	Federal Office of Industry, Trades, and Labor (Federal Department of Public Economy)
Bundesgesetz ueber die Hochschulfoerderung	Federal law for the Promotion of Higher Education
	D
Diplom	Diploma
Diplommittelschule	Diploma middle school: general secondary school not leading to university education
Doktor	Doctorate (academic degree)
Dr. Med.	Doctor of Medicine (M.D.)
	E
Eidgenoessisches Faehigkeitszeugnis	Federal certificate of proficiency (vocational education)
Eidgenoessisches Statistisches Amt	Federal Statistical Office
Eidgenoessische Technische Hochschule	Federal Institute of Technology
Eidgenoessische Turn- und Sportschule	Federal School for Sport and Gymnastics
Erweiterte Ansprueche	Expanded curricular requirements of lower secondary school above the basic type
Erziehungsdirektion	Cantonal education staff
Erziehungsdirektor	Cantonal Director of Education
Erziehungsdirektorenkonferenz, EDK	Swiss Conference of Cantonal Directors of Education
	F
Fachschule	Specialized school, generally offering training in a single field
Fortbildungs- Anschluss- und Vorbereitungsklasse	Continuation, connecting, and preparatory class
Frauenfachschule	Specialized school for women, often with continuing general education
	G
Gewerbliche Berufsschule	Part-time trade and industrial school
Grundansprueche	Basic requirements—the minimum type of the lower secondary school
Gymnasium	The commonest name of the academic secondary school—usually grades 9 or 10 to 13
	H
Handelsdiplomschule	Commercial school leading to a diploma
Handelsmaturitaetsschule	Commercial school leading to a cantonal certificate of maturity
Hauswirtschaftliche Fortbildungsschule	Home economics continuation school
Hauswirtschaftlicher Jahreskurs	One-year course in domestic arts, usually at ninth-grade level

Hauswirtschaftslehrerinnenseminar	Training institute for home economics teachers
Hauswirtschaftsschule	Home economics school
Heilpaedagogisches Seminar	Training institute for teachers of the handicapped
Heimatkunde	Local geography and community study—"knowledge of the immediate homeland"
Hochschule fuer Wirtschafts- und Sozialwissenschaften	School of Economics, Business, and Public Administration (St. Gallen)
Hoehere Mittelschule	Academic upper secondary school
Hoehere Technische Lehranstalt-HTL	Higher Technical Institute (college of engineering) at the higher education level
Hoehere Wirtschafts- und Verwaltungsschule	Higher school of economics and administration
I	
Ingenieurschule	See *Hoehere Technische Lehranstalt*
Ingenieur-Techniker HTL	Degree awarded to graduate of higher technical institute
K	
Kantonsschule	See *Progymnasium*. (In one case the *Kantonschule* includes the entire *Gymnasium*)
Kaufmaennische Berufsschule	Part-time commercial school
Kindergaertnerinnenseminar (pl. *-seminarien*)	Training institute for kindergarten teachers
Kollegium	See *Mittelschule*
Konferenz Schweizerischer Gymnasialrektoren	Conference of Swiss Secondary School Directors
Konferenz der Scheizerischen Lehrerorganisationen, KOSLO	Conference of Swiss Teachers Organizations
Konkordat ueber die Schulkoordination	Concordat on School Coordination
Koordinationskonferenz der deutschschweizer Hochschulen	Coordinating Conference of German-Swiss (German-speaking) Universities
Kunstgewerbeschule	School of design
L	
Landwirtschaftsschule	School of agriculture
Lehrabschlusspruefung	Final examination for apprentices
Lehre	Apprenticeship
Lehrer Patent	Primary teachers' certificate
Lehrerseminar	Teacher-training institute
Lehrmeister	Apprenticeship instructor
Lehrwerkstaette	Full-time trade and industrial school
Lehrwerkstaette fuer Moebelschreiner	Full-time trade school for carpenters and cabinetmakers
M	
Maturitaetsausweis	Certificate of maturity (school-leaving certificate of the academic secondary school)
Maturitaetsschule	See *Mittelschule*
Metalarbeiterschule	School for metal workers
Mittelschule	General term for the upper secondary school, usually grades 9 or 10 to 13. Without a prefix it usually refers to the academic school, synonymous with *hoehere Mittleschule*
Mittlere Reife	"Middle Maturity", level achieved with completion of the *Diploma* middle school
O	
Oberrealschule	*Gymnasium*, type C (mathematics-science emphasis)
Oberschule	Basic type of lower secondary school, formerly the upper level of the primary school
Oberseminar	The higher education level of a teacher-training institute
Ortsschulbehoerde	Local school board
Ortsschulvorstand	Same as *Ortsschulbehoerde*
P	
Philosophie I	Arts (university faculty or department)
Philosophie II	Sciences (university faculty department)
Primarschule	Primary school (Grades 1 to 4, 5, or 6)
Progymnasium	The lower grades of the academic secondary school, extending through the lower secondary level (grades 5, 6, or 7 through grades 8 or 9), sometimes organized as an integral part of the upper academic school

R

Realschule	Lower secondary school, the first level of difficulty above the basic type
Real- un Oberschullehrer-seminar	Teacher-training institute for lower secondary school teachers
Regierungskollegium	Cantonal executive council
Regierungsrat	Same as *Regierungs-kollegium*

S

Schulaufsichtskollegium (pl. *-ien*)	Lay supervisory body at the cantonal level
Schule (pl. *Schulen*)	School
Schule fuer soziale Arbeit	School for social workers
Schulstatistik	School statistics
Schulwesen	Education, school system
Schweizerische Dokumentationsstelle fuer Schul- und Bildungsfragen	Swiss Documentation Center for Teaching and Education, generally called the Swiss Educational Documentation Center
Schweizerische Hochschulkonferenz	Swiss University Council
Schweizerisches Institut fuer Auslandsforschung	Swiss Institute for International Studies
Schweizerisches Institut fuer Berufspaedagogik	Swiss Institute for Vocational Education
Schweizerische Konferenz der Erziehungsdirektoren	Swiss Conference of Cantonal Directors of Education
Schweizerische Koordinationsstelle fuer Bildungsforschung	Swiss Coordination Center for Research in Education
Schweizerischer Nationalfonds zur Foerderung der wissenschaftlichen Forschung	Swiss National Science Foundation
Schweizerischer Verband fuer Berufsberatung	Swiss Association for Vocational Guidance
Schweizerische Vereinigung fuer Erwachsenenbildung	Swiss Federation for Adult Education
Schweizerischer Wissenschaftsrat	Swiss Science Council
Schweizerische Zentralstelle fuer Hochschulwesen	Swiss Central Office for University Affairs
Schweizerische Zentralstelle fuer die Weiterbildung der Mittelschullehrer	Swiss Center for the Inservice Education of Secondary School Teachers
Sekundarlehrerpatent	Teaching certificate for the advanced lower secondary level
Sekundarschule	Lower secondary school representing an intermediate level of difficulty between the *Realschule* and the pre-academic schools (*Progymnasium*)
Senat	University senate (legislative body)
Sommersemester	Summer semester (starts in the early spring and ends in mid-summer)
Sonderschule	School for the handicapped

T

Techniker TS	Title awarded to graduates of the technicians schools
Technikerschule	Technicians school, between the level of vocational schools and advanced technical institutes
Technikum	Same as *Hoehere Technische Lehranstalt*
Technikum beider Basel	Higher Technical Institute maintained by the 2 half-Cantons of Basel
Textil- und Modeschule	Textile and Fashion School (St. Gallen)
Toechterschule	Secondary school for girls, usually offering general education not leading to university entrance.

U

Universitaetsrat	University supervisory council
Untere Mittelschule	See *Progymnasium*
Untergymnasium	See *Progymnasium*
Unterseminar	Secondary school level of a teacher-training institute

V

Verein schweizerischer Gymnasiallehrer	Association of Academic Secondary School Teachers
Verkehrsschule	Transportation and communications school
Verordnung ueber die Anerkennung von Maturitaetsausweisen	Regulations concerning the recognition of certificates of maturity
Volkshochschule	"Popular university" (adult education institution)

Vorschule	Preschool
Vorschulische Erziehung	Preschool education
	W
Werkjahr	Year of work experience (vocational orientation)
Wintersemester	Winter semester at the universities, starting about October 1
Wirtschaftswissenschaft	Primarily economics, but used frequently to include sociology
Wirtschaftswissenschaftliches Gymnasium	*Gymnasium* leading to the type E (economics emphasis) maturity certificate
	Z
Zentralschweizerisches Technikum Luzern	Central Swiss Higher Technical Institute at Lucerne
Zentralschweizer Universitaet Luzern	Central Swiss University of Lucerne (in process of development)
Zentralschweizerische Beratungsstelle	Central Swiss Guidance Office
Zentralstelle fuer berufliche Weiterbildung	Center for continuing vocational education
Zentralverband Schweizerische Erziehungsinstitute und Privatschulen	Central Association of Swiss Educational Institutes and Private Schools

French

French	*English*
	A
Académie	Academic secondary school
Apprentissage et cours complementaires professionnels	Apprenticeship with accompanying part-time vocational schools
	B
Beaux arts, arts decoratifs	Fine arts and design
	C
Centre suisse de documentation en matière d'enseignement et d'education	Swiss Educational Documentation Center
Certificat de maturite	Certificate of maturity (school leaving certificate of the academic secondary school)
Classes enfantines	Preprimary school
Classes finales	Terminal classes in the lower secondary school
Classes spéciales	Special education for the handicapped
Collège	Secondary school (level usually included in the title: e.g., *inferieure, superieure*)
Collège moderne	Intermediate type of lower secondary school, corresponding to the *Sekundarschule*
Cours complémentaires non professionnels	General nonvocational course
Cycle d'orientation	Orientation cycle: several or all lower secondary schools organized as a comprehensive school
	D
d'ingénieur-technicien ETS	Degree awarded to graduate of higher technical institute
Directeurs de l'instruction publique, DIP	Swiss Conference of Cantonal Directors of Education
Docteur	Doctorate (academic degree)
	E
Ecole	School
Ecole d'agriculture	School of agriculture
Ecole atelier	Full-time trade and industrial school
Ecole commerciale	Commercial school
Ecole complémentaire agricoles, ménagères et de culture générale	Part-time school of agriculture, home economics, and general education
Ecole d'art	School of art and design
Ecole langue francaise	Private school in Bern using French as the language of instruction for children of Federal workers from French-speaking Cantons
Ecole ménagères	School of home economics
Ecole normale	Teacher-training institution
Ecole normale pour maîtresses enfantines	Training school for preschool teachers
Ecole Polytechnique Féderal de Lausanne	Federal Institute of Technology at Lausanne
Ecole primaire	Primary school
Ecole secondaire	Secondary school (title usually includes level and type of program)

Ecole supérieure de jeunes filles	Upper secondary school for girls (some with general curriculum, others leading to maturity certificate)
Ecole technique supérieure ETS	Higher technical institute
Enseignement préscolaire	Preschool education
Enseignement secondaire	Secondary education
Enseignement secondaire, classes pratiques	Lower secondary basic type (comparable to *Oberschule*)
Enseignement secondaire inférieur, section moderne	See *College moderne*
Enseignement secondaire inférieur, section classiques et scientifiques	Lower secondary, type leading to the upper academic secondary school
Enseignement technique et professionnel	Technical and vocational education
F	
Fédération suisse pour l'éducation des adults	Swiss Federation for Adult Education
G	
Gymnase	Upper academic secondary school (same as German *Gymnasium*)
Gymnase, Section culture générale	General secondary school not leading to maturity certificate
Institut pour l'Etude des Methodes des Direction l'Enterprise	Management Development Institute
Institute ménagères	School of home economics
L	
Lettres	University department of arts (as in Arts and Sciences)
T	
Technicum	Higher technical institute

Italian

Italian	*English*
A	
Attestato de Maturita	Certificate of Maturity (school leaving certificate of the academic secondary school)
Casa dei bambini	Preprimary school
Centro scolastico industrie artistiche	School of art and design
E	
Educazione prescolastica	Preschool education
Educazione professionale	Technical and vocational education
G	
Ginnasio	Academic secondary school (*sezione inferiore* – lower level; *sezione superiore* – upper level)
I	
Ingegnere-tecnico STS	Degree awarded to graduate of higher technical institute
L	
Liceo	Academic upper secondary school (same as upper level of *ginnasio*)
S	
Scuola	School
Scuola cantonale d'arti e mestiere	Cantonal school of art and design
Scuola d'agricoltura	School of agriculture
Scuola di commercio	Commercial school
Scuola di economia domestica	School of home economics
Scuola elementare	Primary school
Scuola laboratorio	Full-time trade and industrial school
Scuola magistrale	Teacher-training institute
Scuola maggiore	Lower secondary school (formerly the upper primary school)
Scuola speciale	School for the handicapped
Scuola Techniche Superiori STS	Higher technical institute
T	
Tirocinio e corsi per apprendisti	Apprenticeship with part-time accompanying vocational schools

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